



AME8500

mProcessor Supervisory

■ General Description

The AME8500 family allows the user to customize the CPU reset function without any external components. The user has a large choice of reset voltage thresholds, reset time intervals, and output driver configurations, all of which are preset at the factory. Each wafer is trimmed to the customer's specifications.

These circuits monitor the power supply voltage of μP based systems. When the power supply voltage drops below the voltage threshold a reset is asserted immediately (within an interval T_{D1}). The reset remains asserted after the supply voltage rises above the voltage threshold for a time interval, T_{D2} . The reset output may be either active high (RESET) or active low (RESETB). The reset output may be configured as either push/pull or open drain. The state of the reset output is guaranteed to be correct for supply voltages greater than 1V.

Space saving SOT23 package and micropower quiescent current ($<3.0\mu A$) make this family a natural for portable battery powered equipment.

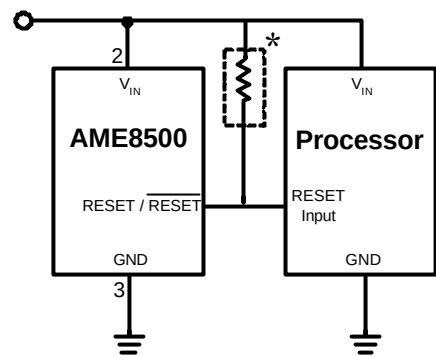
■ Features

- Small Packages: SOT-23, SOT-89
- Tight Voltage Threshold Tolerance --- $\pm 1.50\%$
- Wide Temperature Range ----- $-40^{\circ}C$ to $85^{\circ}C$
- Low Quiescent Current $< 3.0\mu A$
- All AME's Lead Free Products Meet RoHS standards

■ Applications

- Portable Electronics
- Power Supplies
- Computer Peripherals
- Data Acquisition Systems
- Applications using CPUs
- Consumer Electronics

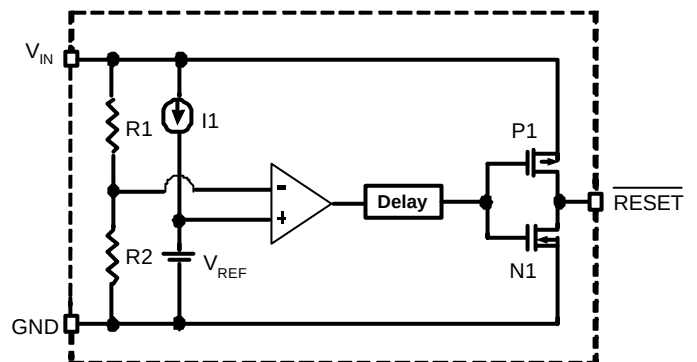
■ Typical Operating Circuit



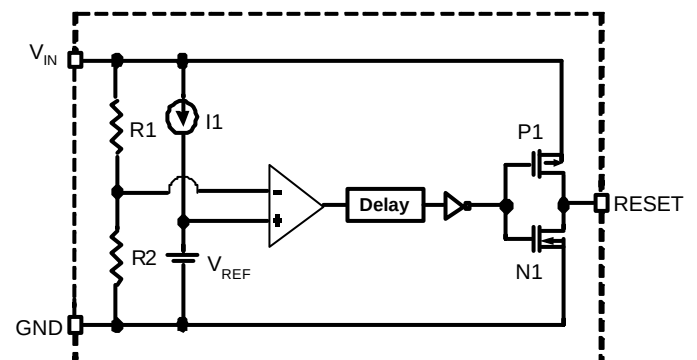
Note: * External pull-up resistor is required if open-drain output is used. 10 k Ω is recommended.

■ Block Diagram

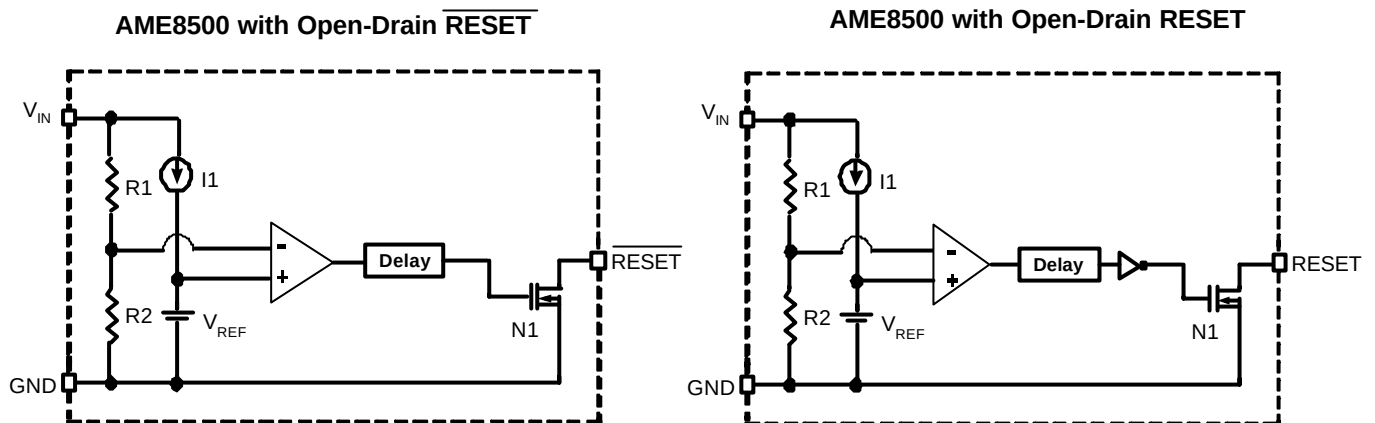
AME8500 with Push-Pull RESET



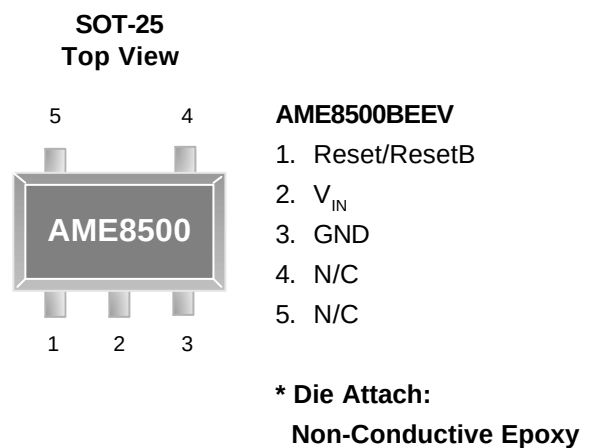
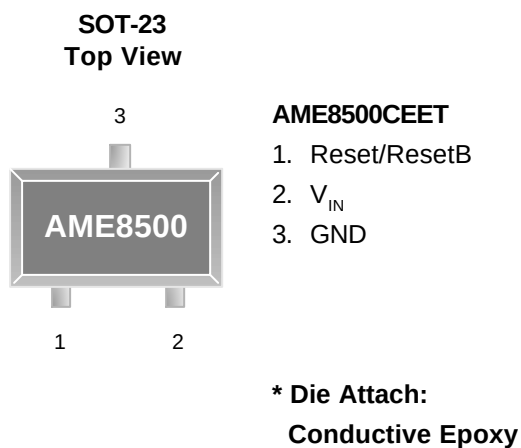
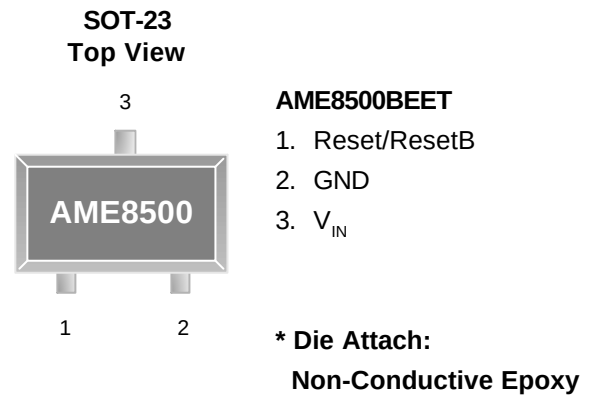
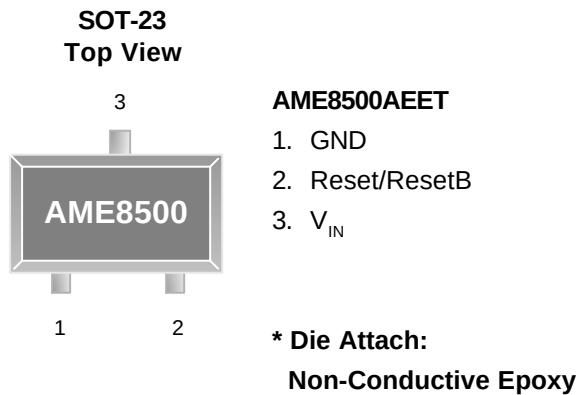
AME8500 with Push-Pull RESET



■ Block Diagram (contd.)

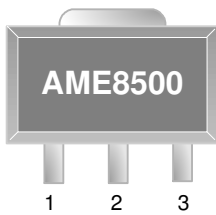


■ Pin Configuration



■ Pin Configuration (contd.)

**SOT-89
Top View**

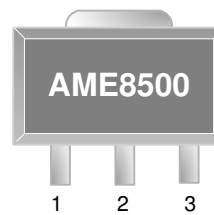


AME8500AEFT

1. GND
2. V_{IN}
3. Reset/ResetB

*** Die Attach:
Non-Conductive Epoxy**

**SOT-89
Top View**

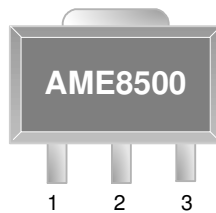


AME8500BEFT

1. Reset/ResetB
2. V_{IN}
3. GND

*** Die Attach:
Non-Conductive Epoxy**

**SOT-89
Top View**



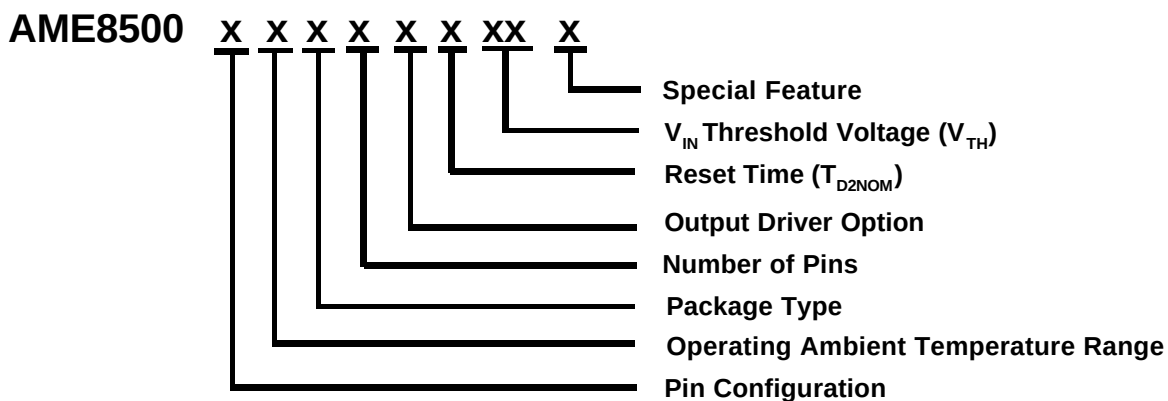
AME8500CEFT

1. V_{IN}
2. GND
3. Reset/ResetB

*** Die Attach:
Conductive Epoxy**

■ Pin Description

Pin Name	Pin Description
GND	Ground
RESETB/RESET	This pin can be ordered as RESET or RESETB. RESET is active high. RESETB is active low. It is also available with an open drain or pushpull output.
V_{IN}	Positive power supply. A reset is asserted after this voltage drops below a predetermined level. After V_{IN} rises above that level the reset output remains asserted until the end of the reset timeout period.

■ Ordering Information


Pin Configuration	Operating Ambient Temperature Range	Package Type	Number of Pins	Output Driver Option Characteristic of RESET or RESETB pin	Reset Time (T_{D2NOM})	V_{IN} Threshold Voltage (V_{TH})	Special Feature
A (SOT-23) 1. GND 2. Reset/ResetB 3. V_{IN}	E -40°C to 85°C	E: SOT-2X F: SOT-89	T: 3 V: 5	A: RESETB /PP B: RESETB /OD C: RESET/ PP D: RESET/ OD (RESET = Active High) (RESETB = Active Low) (PP = Push pull out) (OD = Open drain output)	A: 1.5 ms D: 300 ms E: 150 ms F: 210 ms	15: VTH= 1.50V 16: VTH= 1.60V 18: VTH= 1.80V 19: VTH= 1.90V 20: VTH= 2.00V 21: VTH= 2.10V 22: VTH= 2.20V 23: VTH= 2.32V 24: VTH= 2.40V 25: VTH= 2.50V 26: VTH= 2.63V 27: VTH= 2.70V 28: VTH= 2.80V 29: VTH= 2.93V 30: VTH= 3.00V 31: VTH= 3.08V 35: VTH= 3.50V 40: VTH= 4.00V 42: VTH= 4.20V 44: VTH= 4.38V 45: VTH= 4.50V 46: VTH= 4.63V	L: Low profile Y: Lead free & Low profile Z: Lead free
B (SOT-23) 1. Reset/ResetB 2. GND 3. V_{IN}							
C (SOT-23) 1. Reset/ResetB 2. V_{IN} 3. GND							
A (SOT-89) 1. GND 2. V_{IN} 3. Reset/ResetB							
B (SOT-89) 1. Reset/ResetB 2. V_{IN} 3. GND							
C (SOT-89) 1. V_{IN} 2. GND 3. Reset/ResetB							
B (SOT-25) 1. Reset/ResetB 2. V_{IN} 3. GND 4. N/C 5. N/C							

■ Ordering Information (contd.)

Part Number	Marking*	V _{TH} Voltage	Package	Operating Ambient Temperature Range
AME8500AEETAA16	BCHww	1.60V	SOT-23	- 40°C to + 85°C
AME8500AEETAA16L	BCHww	1.60V	TSOT-23	- 40°C to + 85°C
AME8500AEETAA16Z	BCHww	1.60V	SOT-23	- 40°C to + 85°C
AME8500AEETAA16Y	BCHww	1.60V	TSOT-23	- 40°C to + 85°C
AME8500AEETAA21	ASVww	2.10V	SOT-23	- 40°C to + 85°C
AME8500AEETAA21L	ASVww	2.10V	TSOT-23	- 40°C to + 85°C
AME8500AEETAA21Z	ASVww	2.10V	SOT-23	- 40°C to + 85°C
AME8500AEETAA21Y	ASVww	2.10V	TSOT-23	- 40°C to + 85°C
AME8500AEETAD20	ALXww	2.00V	SOT-23	- 40°C to + 85°C
AME8500AEETAD20L	ALXww	2.00V	TSOT-23	- 40°C to + 85°C
AME8500AEETAD20Z	ALXww	2.00V	SOT-23	- 40°C to + 85°C
AME8500AEETAD20Y	ALXww	2.00V	TSOT-23	- 40°C to + 85°C
AME8500AEETAD26	AGWww	2.63V	SOT-23	- 40°C to + 85°C
AME8500AEETAD26L	AGWww	2.63V	TSOT-23	- 40°C to + 85°C
AME8500AEETAD26Z	AGWww	2.63V	SOT-23	- 40°C to + 85°C
AME8500AEETAD26Y	AGWww	2.63V	TSOT-23	- 40°C to + 85°C
AME8500AEETAD29	ARYww	2.93V	SOT-23	- 40°C to + 85°C
AME8500AEETAD29L	ARYww	2.93V	TSOT-23	- 40°C to + 85°C
AME8500AEETAD29Z	ARYww	2.93V	SOT-23	- 40°C to + 85°C
AME8500AEETAD29Y	ARYww	2.93V	TSOT-23	- 40°C to + 85°C
AME8500AEETAE20	AUAww	2.00V	SOT-23	- 40°C to + 85°C
AME8500AEETAE20L	AUAww	2.00V	TSOT-23	- 40°C to + 85°C
AME8500AEETAE20Z	AUAww	2.00V	SOT-23	- 40°C to + 85°C
AME8500AEETAE20Y	AUAww	2.00V	TSOT-23	- 40°C to + 85°C
AME8500AEETAE21	AVGww	2.10V	SOT-23	- 40°C to + 85°C
AME8500AEETAE21L	AVGww	2.10V	TSOT-23	- 40°C to + 85°C
AME8500AEETAE21Z	AVGww	2.10V	SOT-23	- 40°C to + 85°C
AME8500AEETAE21Y	AVGww	2.10V	TSOT-23	- 40°C to + 85°C

Note: ww represents the date code and pls refer to the Date Code Rule before the Package Dimension.

* A line on top of the first letter represents lead free plating such as ASV

Pls consult AME sales office or authorized Rep./Distributor for the availability of output voltage or package type.

■ Ordering Information (contd.)

Part Number	Marking*	V _{TH} Voltage	Package	Operating Ambient Temperature Range
AME8500AEETAE23	BAUwww	2.32V	SOT-23	- 40°C to + 85°C
AME8500AEETAE23L	BAUwww	2.32V	TSOT-23	- 40°C to + 85°C
AME8500AEETAE23Z	BAUwww	2.32V	SOT-23	- 40°C to + 85°C
AME8500AEETAE23Y	BAUwww	2.32V	TSOT-23	- 40°C to + 85°C
AME8500AEETAE26	ASJwww	2.63V	SOT-23	- 40°C to + 85°C
AME8500AEETAE26L	ASJwww	2.63V	TSOT-23	- 40°C to + 85°C
AME8500AEETAE26Z	ASJwww	2.63V	SOT-23	- 40°C to + 85°C
AME8500AEETAE26Y	ASJwww	2.63V	TSOT-23	- 40°C to + 85°C
AME8500AEETAE29	ALYwww	2.93V	SOT-23	- 40°C to + 85°C
AME8500AEETAE29L	ALYwww	2.93V	TSOT-23	- 40°C to + 85°C
AME8500AEETAE29Z	ALYwww	2.93V	SOT-23	- 40°C to + 85°C
AME8500AEETAE29Y	ALYwww	2.93V	TSOT-23	- 40°C to + 85°C
AME8500AEETAE31	AUBwww	3.08V	SOT-23	- 40°C to + 85°C
AME8500AEETAE31L	AUBwww	3.08V	TSOT-23	- 40°C to + 85°C
AME8500AEETAE31Z	AUBwww	3.08V	SOT-23	- 40°C to + 85°C
AME8500AEETAE31Y	AUBwww	3.08V	TSOT-23	- 40°C to + 85°C
AME8500AEETAE46	ATSwww	4.63V	SOT-23	- 40°C to + 85°C
AME8500AEETAE46L	ATSwww	4.63V	TSOT-23	- 40°C to + 85°C
AME8500AEETAE46Z	ATSwww	4.63V	SOT-23	- 40°C to + 85°C
AME8500AEETAE46Y	ATSwww	4.63V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF15	ATDwww	1.50V	SOT-23	- 40°C to + 85°C
AME8500AEETAF15L	ATDwww	1.50V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF15Z	ATDwww	1.50V	SOT-23	- 40°C to + 85°C
AME8500AEETAF15Y	ATDwww	1.50V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF16	ATEwww	1.60V	SOT-23	- 40°C to + 85°C
AME8500AEETAF16L	ATEwww	1.60V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF16Z	ATEwww	1.60V	SOT-23	- 40°C to + 85°C
AME8500AEETAF16Y	ATEwww	1.60V	TSOT-23	- 40°C to + 85°C

■ Ordering Information (contd.)

Part Number	Marking*	V _{TH} Voltage	Package	Operating Ambient Temperature Range
AME8500AEETAF20	BDTww	2.00V	SOT-23	- 40°C to + 85°C
AME8500AEETAF20L	BDTww	2.00V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF20Z	BDTww	2.00V	SOT-23	- 40°C to + 85°C
AME8500AEETAF20Y	BDTww	2.00V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF21	ASKww	2.10V	SOT-23	- 40°C to + 85°C
AME8500AEETAF21L	ASKww	2.10V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF21Z	ASKww	2.10V	SOT-23	- 40°C to + 85°C
AME8500AEETAF21Y	ASKww	2.10V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF23	ATTww	2.32V	SOT-23	- 40°C to + 85°C
AME8500AEETAF23L	ATTww	2.32V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF23Z	ATTww	2.32V	SOT-23	- 40°C to + 85°C
AME8500AEETAF23Y	ATTww	2.32V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF25	AUYww	2.50V	SOT-23	- 40°C to + 85°C
AME8500AEETAF25L	AUYww	2.50V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF25Z	AUYww	2.50V	SOT-23	- 40°C to + 85°C
AME8500AEETAF25Y	AUYww	2.50V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF26	AMPww	2.63V	SOT-23	- 40°C to + 85°C
AME8500AEETAF26L	AMPww	2.63V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF26Z	AMPww	2.63V	SOT-23	- 40°C to + 85°C
AME8500AEETAF26Y	AMPww	2.63V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF27	ATRww	2.70V	SOT-23	- 40°C to + 85°C
AME8500AEETAF27L	ATRww	2.70V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF27Z	ATRww	2.70V	SOT-23	- 40°C to + 85°C
AME8500AEETAF27Y	ATRww	2.70V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF29	AMOWw	2.93V	SOT-23	- 40°C to + 85°C
AME8500AEETAF29L	AMOWw	2.93V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF29Z	AMOWw	2.93V	SOT-23	- 40°C to + 85°C
AME8500AEETAF29Y	AMOWw	2.93V	TSOT-23	- 40°C to + 85°C

■ Ordering Information (contd.)

Part Number	Marking*	V _{TH} Voltage	Package	Operating Ambient Temperature Range
AME8500AEETAF30	ASGwww	3.00V	SOT-23	- 40°C to + 85°C
AME8500AEETAF30L	ASGwww	3.00V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF30Z	ASGwww	3.00V	SOT-23	- 40°C to + 85°C
AME8500AEETAF30Y	ASGwww	3.00V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF31	ASAwwww	3.08V	SOT-23	- 40°C to + 85°C
AME8500AEETAF31L	ASAwwww	3.08V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF31Z	ASAwwww	3.08V	SOT-23	- 40°C to + 85°C
AME8500AEETAF31Y	ASAwwww	3.08V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF40	ASBwww	4.00V	SOT-23	- 40°C to + 85°C
AME8500AEETAF40L	ASBwww	4.00V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF40Z	ASBwww	4.00V	SOT-23	- 40°C to + 85°C
AME8500AEETAF40Y	ASBwww	4.00V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF44	ARNwww	4.38V	SOT-23	- 40°C to + 85°C
AME8500AEETAF44L	ARNwww	4.38V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF44Z	ARNwww	4.38V	SOT-23	- 40°C to + 85°C
AME8500AEETAF44Y	ARNwww	4.38V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF46	ARKwww	4.63V	SOT-23	- 40°C to + 85°C
AME8500AEETAF46L	ARKwww	4.63V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF46Z	ARKwww	4.63V	SOT-23	- 40°C to + 85°C
AME8500AEETAF46Y	ARKwww	4.63V	TSOT-23	- 40°C to + 85°C
AME8500AEETBA24	ARRwww	2.40V	SOT-23	- 40°C to + 85°C
AME8500AEETBA24L	ARRwww	2.40V	SOT-23	- 40°C to + 85°C
AME8500AEETBA24Z	ARRwww	2.40V	TSOT-23	- 40°C to + 85°C
AME8500AEETBA24Y	ARRwww	2.40V	SOT-23	- 40°C to + 85°C
AME8500AEETBA30	ARQwww	3.00V	SOT-23	- 40°C to + 85°C
AME8500AEETBA30L	ARQwww	3.00V	SOT-23	- 40°C to + 85°C
AME8500AEETBA30Z	ARQwww	3.00V	TSOT-23	- 40°C to + 85°C
AME8500AEETBA30Y	ARQwww	3.00V	SOT-23	- 40°C to + 85°C

■ Ordering Information (contd.)

Part Number	Marking*	V _{TH} Voltage	Package	Operating Ambient Temperature Range
AME8500AEETBD18	BAMwww	1.80V	SOT-23	- 40°C to + 85°C
AME8500AEETBD18L	BAMwww	1.80V	TSOT-23	- 40°C to + 85°C
AME8500AEETBD18Z	BAMwww	1.80V	SOT-23	- 40°C to + 85°C
AME8500AEETBD18Y	BAMwww	1.80V	TSOT-23	- 40°C to + 85°C
AME8500AEETBD29	BDNwww	2.93V	SOT-23	- 40°C to + 85°C
AME8500AEETBD29L	BDNwww	2.93V	TSOT-23	- 40°C to + 85°C
AME8500AEETBD29Z	BDNwww	2.93V	SOT-23	- 40°C to + 85°C
AME8500AEETBD29Y	BDNwww	2.93V	TSOT-23	- 40°C to + 85°C
AME8500AEETBE18	BALwww	1.80V	SOT-23	- 40°C to + 85°C
AME8500AEETBE18L	BALwww	1.80V	TSOT-23	- 40°C to + 85°C
AME8500AEETBE18Z	BALwww	1.80V	SOT-23	- 40°C to + 85°C
AME8500AEETBE18Y	BALwww	1.80V	TSOT-23	- 40°C to + 85°C
AME8500AEETBE20	AWXwww	2.00V	SOT-23	- 40°C to + 85°C
AME8500AEETBE20L	AWXwww	2.00V	TSOT-23	- 40°C to + 85°C
AME8500AEETBE20Z	AWXwww	2.00V	SOT-23	- 40°C to + 85°C
AME8500AEETBE20Y	AWXwww	2.00V	TSOT-23	- 40°C to + 85°C
AME8500AEETBF16	BCGwww	1.60V	SOT-23	- 40°C to + 85°C
AME8500AEETBF16L	BCGwww	1.60V	TSOT-23	- 40°C to + 85°C
AME8500AEETBF16Z	BCGwww	1.60V	SOT-23	- 40°C to + 85°C
AME8500AEETBF16Y	BCGwww	1.60V	TSOT-23	- 40°C to + 85°C
AME8500AEETBF31	AUTwww	3.08V	SOT-23	- 40°C to + 85°C
AME8500AEETBF31L	AUTwww	3.08V	TSOT-23	- 40°C to + 85°C
AME8500AEETBF31Z	AUTwww	3.08V	SOT-23	- 40°C to + 85°C
AME8500AEETBF31Y	AUTwww	3.08V	TSOT-23	- 40°C to + 85°C
AME8500AEETBF44	AYRwww	4.38V	SOT-23	- 40°C to + 85°C
AME8500AEETBF44L	AYRwww	4.38V	TSOT-23	- 40°C to + 85°C
AME8500AEETBF44Z	AYRwww	4.38V	SOT-23	- 40°C to + 85°C
AME8500AEETBF44Y	AYRwww	4.38V	TSOT-23	- 40°C to + 85°C

■ Ordering Information (contd.)

Part Number	Marking*	V _{TH} Voltage	Package	Operating Ambient Temperature Range
AME8500AEETBF46	AUUwww	4.63V	SOT-23	- 40°C to + 85°C
AME8500AEETBF46L	AUUwww	4.63V	TSOT-23	- 40°C to + 85°C
AME8500AEETBF46Z	AUUwww	4.63V	SOT-23	- 40°C to + 85°C
AME8500AEETBF46Y	AUUwww	4.63V	TSOT-23	- 40°C to + 85°C
AME8500AEETCA21	ASWwww	2.10V	SOT-23	- 40°C to + 85°C
AME8500AEETCA21L	ASWwww	2.10V	TSOT-23	- 40°C to + 85°C
AME8500AEETCA21Z	ASWwww	2.10V	SOT-23	- 40°C to + 85°C
AME8500AEETCA21Y	ASWwww	2.10V	TSOT-23	- 40°C to + 85°C
AME8500AEETCA27	AVBwww	2.70V	SOT-23	- 40°C to + 85°C
AME8500AEETCA27L	AVBwww	2.70V	TSOT-23	- 40°C to + 85°C
AME8500AEETCA27Z	AVBwww	2.70V	SOT-23	- 40°C to + 85°C
AME8500AEETCA27Y	AVBwww	2.70V	TSOT-23	- 40°C to + 85°C
AME8500AEETCA46	AVCwww	4.63V	SOT-23	- 40°C to + 85°C
AME8500AEETCA46L	AVCwww	4.63V	TSOT-23	- 40°C to + 85°C
AME8500AEETCA46Z	AVCwww	4.63V	SOT-23	- 40°C to + 85°C
AME8500AEETCA46Y	AVCwww	4.63V	TSOT-23	- 40°C to + 85°C
AME8500AEETCD20	ALZwww	2.00V	SOT-23	- 40°C to + 85°C
AME8500AEETCD20L	ALZwww	2.00V	TSOT-23	- 40°C to + 85°C
AME8500AEETCD20Z	ALZwww	2.00V	SOT-23	- 40°C to + 85°C
AME8500AEETCD20Y	ALZwww	2.00V	TSOT-23	- 40°C to + 85°C
AME8500AEETCF21	ATYwww	2.10V	SOT-23	- 40°C to + 85°C
AME8500AEETCF21L	ATYwww	2.10V	TSOT-23	- 40°C to + 85°C
AME8500AEETCF21Z	ATYwww	2.10V	SOT-23	- 40°C to + 85°C
AME8500AEETCF21Y	ATYwww	2.10V	TSOT-23	- 40°C to + 85°C
AME8500AEETCF26	AZMwww	2.63V	SOT-23	- 40°C to + 85°C
AME8500AEETCF26L	AZMwww	2.63V	TSOT-23	- 40°C to + 85°C
AME8500AEETCF26Z	AZMwww	2.63V	SOT-23	- 40°C to + 85°C
AME8500AEETCF26Y	AZMwww	2.63V	TSOT-23	- 40°C to + 85°C

■ Ordering Information (contd.)

Part Number	Marking*	V _{TH} Voltage	Package	Operating Ambient Temperature Range
AME8500AEETCF29	ALVwww	2.93V	SOT-23	- 40°C to + 85°C
AME8500AEETCF29L	ALVwww	2.93V	TSOT-23	- 40°C to + 85°C
AME8500AEETCF29Z	ALVwww	2.93V	SOT-23	- 40°C to + 85°C
AME8500AEETCF29Y	ALVwww	2.93V	TSOT-23	- 40°C to + 85°C
AME8500AEETCF31	ASUwww	3.08V	SOT-23	- 40°C to + 85°C
AME8500AEETCF31L	ASUwww	3.08V	TSOT-23	- 40°C to + 85°C
AME8500AEETCF31Z	ASUwww	3.08V	SOT-23	- 40°C to + 85°C
AME8500AEETCF31Y	ASUwww	3.08V	TSOT-23	- 40°C to + 85°C
AME8500AEETCF46	ARJwww	4.63V	SOT-23	- 40°C to + 85°C
AME8500AEETCF46L	ARJwww	4.63V	TSOT-23	- 40°C to + 85°C
AME8500AEETCF46Z	ARJwww	4.63V	SOT-23	- 40°C to + 85°C
AME8500AEETCF46Y	ARJwww	4.63V	TSOT-23	- 40°C to + 85°C
AME8500AEETDE40	BCSwww	4.00V	SOT-23	- 40°C to + 85°C
AME8500AEETDE40L	BCSwww	4.00V	TSOT-23	- 40°C to + 85°C
AME8500AEETDE40Z	BCSwww	4.00V	SOT-23	- 40°C to + 85°C
AME8500AEETDE40Y	BCSwww	4.00V	TSOT-23	- 40°C to + 85°C
AME8500AEETDF26	ALUwww	2.63V	SOT-23	- 40°C to + 85°C
AME8500AEETDF26L	ALUwww	2.63V	TSOT-23	- 40°C to + 85°C
AME8500AEETDF26Z	ALUwww	2.63V	SOT-23	- 40°C to + 85°C
AME8500AEETDF26Y	ALUwww	2.63V	TSOT-23	- 40°C to + 85°C
AME8500AEETDF27	BCTwww	2.70V	SOT-23	- 40°C to + 85°C
AME8500AEETDF27L	BCTwww	2.70V	TSOT-23	- 40°C to + 85°C
AME8500AEETDF27Z	BCTwww	2.70V	SOT-23	- 40°C to + 85°C
AME8500AEETDF27Y	BCTwww	2.70V	TSOT-23	- 40°C to + 85°C
AME8500AEETDF28	BCUwww	2.80V	SOT-23	- 40°C to + 85°C
AME8500AEETDF28L	BCUwww	2.80V	TSOT-23	- 40°C to + 85°C
AME8500AEETDF28Z	BCUwww	2.80V	SOT-23	- 40°C to + 85°C
AME8500AEETDF28Y	BCUwww	2.80V	TSOT-23	- 40°C to + 85°C

■ Ordering Information (contd.)

Part Number	Marking*	V _{TH} Voltage	Package	Operating Ambient Temperature Range
AME8500AEETDF30	BCVwww	3.00V	SOT-23	- 40°C to + 85°C
AME8500AEETDF30L	BCVwww	3.00V	TSOT-23	- 40°C to + 85°C
AME8500AEETDF30Z	BCVwww	3.00V	SOT-23	- 40°C to + 85°C
AME8500AEETDF30Y	BCVwww	3.00V	TSOT-23	- 40°C to + 85°C
AME8500AEETDF46	ARIwww	4.63V	SOT-23	- 40°C to + 85°C
AME8500AEETDF46L	ARIwww	4.63V	TSOT-23	- 40°C to + 85°C
AME8500AEETDF46Z	ARIwww	4.63V	SOT-23	- 40°C to + 85°C
AME8500AEETDF46Y	ARIwww	4.63V	TSOT-23	- 40°C to + 85°C
AME8500AEFTAA21	A8500A AA21www	2.10V	SOT-89	- 40°C to + 85°C
AME8500AEFTAA21Z	A8500A AA21www	2.10V	SOT-89	- 40°C to + 85°C
AME8500AEFTAF27	A8500A AF27www	2.70V	SOT-89	- 40°C to + 85°C
AME8500AEFTAF27Z	A8500A AF27www	2.70V	SOT-89	- 40°C to + 85°C
AME8500AEFTCA21	A8500A CA21www	2.10V	SOT-89	- 40°C to + 85°C
AME8500AEFTCA21Z	A8500A CA21www	2.10V	SOT-89	- 40°C to + 85°C
AME8500AEFTDA21	A8500A DA21www	2.10V	SOT-89	- 40°C to + 85°C
AME8500AEFTDA21Z	A8500A DA21www	2.10V	SOT-89	- 40°C to + 85°C
AME8500BEETAA21	ARTwww	2.10V	SOT-23	- 40°C to + 85°C
AME8500BEETAA21L	ARTwww	2.10V	TSOT-23	- 40°C to + 85°C
AME8500BEETAA21Z	ARTwww	2.10V	SOT-23	- 40°C to + 85°C
AME8500BEETAA21Y	ARTwww	2.10V	TSOT-23	- 40°C to + 85°C
AME8500BEETAA27	ARMwww	2.70V	SOT-23	- 40°C to + 85°C
AME8500BEETAA27L	ARMwww	2.70V	TSOT-23	- 40°C to + 85°C
AME8500BEETAA27Z	ARMwww	2.70V	SOT-23	- 40°C to + 85°C
AME8500BEETAA27Y	ARMwww	2.70V	TSOT-23	- 40°C to + 85°C

■ Ordering Information (contd.)

Part Number	Marking*	V _{TH} Voltage	Package	Operating Ambient Temperature Range
AME8500BEETAA28	ASRwww	2.80V	SOT-23	- 40°C to + 85°C
AME8500BEETAA28L	ASRwww	2.80V	TSOT-23	- 40°C to + 85°C
AME8500BEETAA28Z	ASRwww	2.80V	SOT-23	- 40°C to + 85°C
AME8500BEETAA28Y	ASRwww	2.80V	TSOT-23	- 40°C to + 85°C
AME8500BEETAA29	ARZwww	2.93V	SOT-23	- 40°C to + 85°C
AME8500BEETAA29L	ARZwww	2.93V	TSOT-23	- 40°C to + 85°C
AME8500BEETAA29Z	ARZwww	2.93V	SOT-23	- 40°C to + 85°C
AME8500BEETAA29Y	ARZwww	2.93V	TSOT-23	- 40°C to + 85°C
AME8500BEETAA30	ASCwww	3.00V	SOT-23	- 40°C to + 85°C
AME8500BEETAA30L	ASCwww	3.00V	TSOT-23	- 40°C to + 85°C
AME8500BEETAA30Z	ASCwww	3.00V	SOT-23	- 40°C to + 85°C
AME8500BEETAA30Y	ASCwww	3.00V	TSOT-23	- 40°C to + 85°C
AME8500BEETAA45	ATPwww	4.50V	SOT-23	- 40°C to + 85°C
AME8500BEETAA45L	ATPwww	4.50V	TSOT-23	- 40°C to + 85°C
AME8500BEETAA45Z	ATPwww	4.50V	SOT-23	- 40°C to + 85°C
AME8500BEETAA45Y	ATPwww	4.50V	TSOT-23	- 40°C to + 85°C
AME8500BEETAF27	AUCwww	2.70V	SOT-23	- 40°C to + 85°C
AME8500BEETAF27L	AUCwww	2.70V	TSOT-23	- 40°C to + 85°C
AME8500BEETAF27Z	AUCwww	2.70V	SOT-23	- 40°C to + 85°C
AME8500BEETAF27Y	AUCwww	2.70V	TSOT-23	- 40°C to + 85°C
AME8500BEETAF29	AUVwww	2.93V	SOT-23	- 40°C to + 85°C
AME8500BEETAF29L	AUVwww	2.93V	TSOT-23	- 40°C to + 85°C
AME8500BEETAF29Z	AUVwww	2.93V	SOT-23	- 40°C to + 85°C
AME8500BEETAF29Y	AUVwww	2.93V	TSOT-23	- 40°C to + 85°C
AME8500BEETAF31	ATOWww	3.08V	SOT-23	- 40°C to + 85°C
AME8500BEETAF31L	ATOWww	3.08V	TSOT-23	- 40°C to + 85°C
AME8500BEETAF31Z	ATOWww	3.08V	SOT-23	- 40°C to + 85°C
AME8500BEETAF31Y	ATOWww	3.08V	TSOT-23	- 40°C to + 85°C

■ Ordering Information (contd.)

Part Number	Marking*	V _{TH} Voltage	Package	Operating Ambient Temperature Range
AME8500BEETAF40	ATQwww	4.00V	SOT-23	- 40°C to + 85°C
AME8500BEETAF40L	ATQwww	4.00V	TSOT-23	- 40°C to + 85°C
AME8500BEETAF40Z	ATQwww	4.00V	SOT-23	- 40°C to + 85°C
AME8500BEETAF40Y	ATQwww	4.00V	TSOT-23	- 40°C to + 85°C
AME8500BEETBA21	AUWwww	2.10V	SOT-23	- 40°C to + 85°C
AME8500BEETBA21L	AUWwww	2.10V	TSOT-23	- 40°C to + 85°C
AME8500BEETBA21Z	AUWwww	2.10V	SOT-23	- 40°C to + 85°C
AME8500BEETBA21Y	AUWwww	2.10V	TSOT-23	- 40°C to + 85°C
AME8500BEETBA22	AVDwww	2.20V	SOT-23	- 40°C to + 85°C
AME8500BEETBA22L	AVDwww	2.20V	TSOT-23	- 40°C to + 85°C
AME8500BEETBA22Z	AVDwww	2.20V	SOT-23	- 40°C to + 85°C
AME8500BEETBA22Y	AVDwww	2.20V	TSOT-23	- 40°C to + 85°C
AME8500BEETBA24	AUXwww	2.40V	SOT-23	- 40°C to + 85°C
AME8500BEETBA24L	AUXwww	2.40V	TSOT-23	- 40°C to + 85°C
AME8500BEETBA24Z	AUXwww	2.40V	SOT-23	- 40°C to + 85°C
AME8500BEETBA24Y	AUXwww	2.40V	TSOT-23	- 40°C to + 85°C
AME8500BEETBA25	AVQwww	2.50V	SOT-23	- 40°C to + 85°C
AME8500BEETBA25L	AVQwww	2.50V	TSOT-23	- 40°C to + 85°C
AME8500BEETBA25Z	AVQwww	2.50V	SOT-23	- 40°C to + 85°C
AME8500BEETBA25Y	AVQwww	2.50V	TSOT-23	- 40°C to + 85°C
AME8500BEETBA27	ASQwww	2.70V	SOT-23	- 40°C to + 85°C
AME8500BEETBA27L	ASQwww	2.70V	TSOT-23	- 40°C to + 85°C
AME8500BEETBA27Z	ASQwww	2.70V	SOT-23	- 40°C to + 85°C
AME8500BEETBA27Y	ASQwww	2.70V	TSOT-23	- 40°C to + 85°C
AME8500BEETBA28	ASSwww	2.80V	SOT-23	- 40°C to + 85°C
AME8500BEETBA28L	ASSwww	2.80V	TSOT-23	- 40°C to + 85°C
AME8500BEETBA28Z	ASSwww	2.80V	SOT-23	- 40°C to + 85°C
AME8500BEETBA28Y	ASSwww	2.80V	TSOT-23	- 40°C to + 85°C

■ Ordering Information (contd.)

Part Number	Marking*	V _{TH} Voltage	Package	Operating Ambient Temperature Range
AME8500BEETBA29	ARLww	2.93V	SOT-23	- 40°C to + 85°C
AME8500BEETBA29L	ARLww	2.93V	TSOT-23	- 40°C to + 85°C
AME8500BEETBA29Z	ARLww	2.93V	SOT-23	- 40°C to + 85°C
AME8500BEETBA29Y	ARLww	2.93V	TSOT-23	- 40°C to + 85°C
AME8500BEETBA35	AZGww	3.50V	SOT-23	- 40°C to + 85°C
AME8500BEETBA35L	AZGww	3.50V	TSOT-23	- 40°C to + 85°C
AME8500BEETBA35Z	AZGww	3.50V	SOT-23	- 40°C to + 85°C
AME8500BEETBA35Y	AZGww	3.50V	TSOT-23	- 40°C to + 85°C
AME8500BEETBA42	ASlww	4.20V	SOT-23	- 40°C to + 85°C
AME8500BEETBA42L	ASlww	4.20V	TSOT-23	- 40°C to + 85°C
AME8500BEETBA42Z	ASlww	4.20V	SOT-23	- 40°C to + 85°C
AME8500BEETBA42Y	ASlww	4.20V	TSOT-23	- 40°C to + 85°C
AME8500BEETBE21	BBDww	2.10V	SOT-23	- 40°C to + 85°C
AME8500BEETBE21L	BBDww	2.10V	TSOT-23	- 40°C to + 85°C
AME8500BEETBE21Z	BBDww	2.10V	SOT-23	- 40°C to + 85°C
AME8500BEETBE21Y	BBDww	2.10V	TSOT-23	- 40°C to + 85°C
AME8500BEETBE42	BDUww	4.20V	SOT-23	- 40°C to + 85°C
AME8500BEETBE42L	BDUww	4.20V	TSOT-23	- 40°C to + 85°C
AME8500BEETBE42Z	BDUww	4.20V	SOT-23	- 40°C to + 85°C
AME8500BEETBE42Y	BDUww	4.20V	TSOT-23	- 40°C to + 85°C
AME8500BEETBF45	BDXww	4.50V	SOT-23	- 40°C to + 85°C
AME8500BEETBF45L	BDXww	4.50V	TSOT-23	- 40°C to + 85°C
AME8500BEETBF45Z	BDXww	4.50V	SOT-23	- 40°C to + 85°C
AME8500BEETBF45Y	BDXww	4.50V	TSOT-23	- 40°C to + 85°C
AMF8500BEFTBF21	BBEww	2.10V	SOT-23	- 40°C to + 85°C
AMF8500BEFTBF21L	BBEww	2.10V	TSOT-23	- 40°C to + 85°C
AMF8500BEFTBF21Z	BBEww	2.10V	SOT-23	- 40°C to + 85°C
AMF8500BEFTBF21Y	BBEww	2.10V	TSOT-23	- 40°C to + 85°C

■ Ordering Information (contd.)

Part Number	Marking*	V _{TH} Voltage	Package	Operating Ambient Temperature Range
AME8500BEETCA21	ASXwww	2.10V	SOT-23	- 40°C to + 85°C
AME8500BEETCA21L	ASXwww	2.10V	TSOT-23	- 40°C to + 85°C
AME8500BEETCA21Z	ASXwww	2.10V	SOT-23	- 40°C to + 85°C
AME8500BEETCA21Y	ASXwww	2.10V	TSOT-23	- 40°C to + 85°C
AME8500BEEVAK27	AUFwww	2.70V	SOT-25	- 40°C to + 85°C
AME8500BEEVAK27L	AUFwww	2.70V	TSOT-25	- 40°C to + 85°C
AME8500BEEVAK27Z	AUFwww	2.70V	SOT-25	- 40°C to + 85°C
AME8500BEEVAK27Y	AUFwww	2.70V	TSOT-25	- 40°C to + 85°C
AME8500BEFTAA21	A8500B AA21www	2.10V	SOT-89	- 40°C to + 85°C
AME8500BEFTAA21Z	A8500B AA21www	2.10V	SOT-89	- 40°C to + 85°C
AME8500BEFTAA27	A8500B AA27www	2.70V	SOT-89	- 40°C to + 85°C
AME8500BEFTAA27Z	A8500B AA27www	2.70V	SOT-89	- 40°C to + 85°C
AME8500BEFTAF27	A8500B AF27www	2.70V	SOT-89	- 40°C to + 85°C
AME8500BEFTAF27Z	A8500B AF27www	2.70V	SOT-89	- 40°C to + 85°C
AME8500BEFTAF40	A8500B AF40www	4.00V	SOT-89	- 40°C to + 85°C
AME8500BEFTAF40Z	A8500B AF40www	4.00V	SOT-89	- 40°C to + 85°C
AME8500BEFTBA23	A8500B BA23www	2.32V	SOT-89	- 40°C to + 85°C
AME8500BEFTBA23Z	A8500B BA23www	2.32V	SOT-89	- 40°C to + 85°C
AME8500BEFTBA24	A8500B BA24www	2.40V	SOT-89	- 40°C to + 85°C
AME8500BEFTBA24Z	A8500B BA24www	2.40V	SOT-89	- 40°C to + 85°C
AME8500CEETAA21	ASYwww	2.10V	SOT-23	- 40°C to + 85°C
AME8500CEETAA21L	ASYwww	2.10V	TSOT-23	- 40°C to + 85°C
AME8500CEETAA21Z	ASYwww	2.10V	SOT-23	- 40°C to + 85°C
AME8500CEETAA21Y	ASYwww	2.10V	TSOT-23	- 40°C to + 85°C

■ Ordering Information (contd.)

Part Number	Marking*	V _{TH} Voltage	Package	Operating Ambient Temperature Range
AME8500CEETAE24	BCRwww	2.40V	SOT-23	- 40°C to + 85°C
AME8500CEETAE24L	BCRwww	2.40V	TSOT-23	- 40°C to + 85°C
AME8500CEETAE24Z	BCRwww	2.40V	SOT-23	- 40°C to + 85°C
AME8500CEETAE24Y	BCRwww	2.40V	TSOT-23	- 40°C to + 85°C
AME8500CEETAE26	ASHwww	2.63V	SOT-23	- 40°C to + 85°C
AME8500CEETAE26L	ASHwww	2.63V	TSOT-23	- 40°C to + 85°C
AME8500CEETAE26Z	ASHwww	2.63V	SOT-23	- 40°C to + 85°C
AME8500CEETAE26Y	ASHwww	2.63V	TSOT-23	- 40°C to + 85°C
AME8500CEETAE28	BCQwww	2.80V	SOT-23	- 40°C to + 85°C
AME8500CEETAE28L	BCQwww	2.80V	TSOT-23	- 40°C to + 85°C
AME8500CEETAE28Z	BCQwww	2.80V	SOT-23	- 40°C to + 85°C
AME8500CEETAE28Y	BCQwww	2.80V	TSOT-23	- 40°C to + 85°C
AME8500CEETAE31	BDCwww	3.08V	SOT-23	- 40°C to + 85°C
AME8500CEETAE31L	BDCwww	3.08V	TSOT-23	- 40°C to + 85°C
AME8500CEETAE31Z	BDCwww	3.08V	SOT-23	- 40°C to + 85°C
AME8500CEETAE31Y	BDCwww	3.08V	TSOT-23	- 40°C to + 85°C
AME8500CEETAE40	BCPwww	4.00V	SOT-23	- 40°C to + 85°C
AME8500CEETAE40L	BCPwww	4.00V	TSOT-23	- 40°C to + 85°C
AME8500CEETAE40Z	BCPwww	4.00V	SOT-23	- 40°C to + 85°C
AME8500CEETAE40Y	BCPwww	4.00V	TSOT-23	- 40°C to + 85°C
AME8500CEETAE42	AUZwww	4.20V	SOT-23	- 40°C to + 85°C
AME8500CEETAE42L	AUZwww	4.20V	TSOT-23	- 40°C to + 85°C
AME8500CEETAE42Z	AUZwww	4.20V	SOT-23	- 40°C to + 85°C
AME8500CEETAE42Y	AUZwww	4.20V	TSOT-23	- 40°C to + 85°C
AME8500CEETAF29	ASLwww	2.93V	SOT-23	- 40°C to + 85°C
AME8500CEETAF29L	ASLwww	2.93V	TSOT-23	- 40°C to + 85°C
AME8500CEETAF29Z	ASLwww	2.93V	SOT-23	- 40°C to + 85°C
AME8500CEETAF29Y	ASLwww	2.93V	TSOT-23	- 40°C to + 85°C

■ Ordering Information (contd.)

Part Number	Marking*	V _{TH} Voltage	Package	Operating Ambient Temperature Range
AME8500CEETBA26	AXLww	2.63V	SOT-23	- 40°C to + 85°C
AME8500CEETBA26L	AXLww	2.63V	TSOT-23	- 40°C to + 85°C
AME8500CEETBA26Z	AXLww	2.63V	SOT-23	- 40°C to + 85°C
AME8500CEETBA26Y	AXLww	2.63V	TSOT-23	- 40°C to + 85°C
AME8500CEETBE31	BAXww	3.08V	SOT-23	- 40°C to + 85°C
AME8500CEETBE31L	BAXww	3.08V	TSOT-23	- 40°C to + 85°C
AME8500CEETBE31Z	BAXww	3.08V	SOT-23	- 40°C to + 85°C
AME8500CEETBE31Y	BAXww	3.08V	TSOT-23	- 40°C to + 85°C
AME8500CEETBE42	AVAww	4.20V	SOT-23	- 40°C to + 85°C
AME8500CEETBE42L	AVAww	4.20V	TSOT-23	- 40°C to + 85°C
AME8500CEETBE42Z	AVAww	4.20V	SOT-23	- 40°C to + 85°C
AME8500CEETBE42Y	AVAww	4.20V	TSOT-23	- 40°C to + 85°C
AME8500CEETBF31	AVYww	3.08V	SOT-23	- 40°C to + 85°C
AME8500CEETBF31L	AVYww	3.08V	TSOT-23	- 40°C to + 85°C
AME8500CEETBF31Z	AVYww	3.08V	SOT-23	- 40°C to + 85°C
AME8500CEETBF31Y	AVYww	3.08V	TSOT-23	- 40°C to + 85°C
AME8500CEETBF29	BDOww	2.93V	SOT-23	- 40°C to + 85°C
AME8500CEETBF29L	BDOww	2.93V	TSOT-23	- 40°C to + 85°C
AME8500CEETBF29Z	BDOww	2.93V	SOT-23	- 40°C to + 85°C
AME8500CEETBF29Y	BDOww	2.93V	TSOT-23	- 40°C to + 85°C
AME8500CEETBF46	ARWww	4.63V	SOT-23	- 40°C to + 85°C
AME8500CEETBF46L	ARWww	4.63V	TSOT-23	- 40°C to + 85°C
AME8500CEETBF46Z	ARWww	4.63V	SOT-23	- 40°C to + 85°C
AME8500CEETBF46Y	ARWww	4.63V	TSOT-23	- 40°C to + 85°C
AME8500CEETCA21	ASZww	2.10V	SOT-23	- 40°C to + 85°C
AME8500CEETCA21L	ASZww	2.10V	TSOT-23	- 40°C to + 85°C
AME8500CEETCA21Z	ASZww	2.10V	SOT-23	- 40°C to + 85°C
AME8500CEETCA21Y	ASZww	2.10V	TSOT-23	- 40°C to + 85°C



■ Ordering Information

Part Number	Marking*	V _{TH} Voltage	Package	Operating Ambient Temperature Range
AME8500AEETAF20	BDTww	2.00V	SOT-23	- 40°C to + 85°C
AME8500AEETAF20L	BDTww	2.00V	TSOT-23	- 40°C to + 85°C
AME8500AEETAF20Z	BDTww	2.00V	SOT-23	- 40°C to + 85°C
AME8500AEETAF20Y	BDTww	2.00V	TSOT-23	- 40°C to + 85°C
AME8500BEETBE42	BDUww	4.20V	SOT-23	- 40°C to + 85°C
AME8500BEETBE42L	BDUww	4.20V	TSOT-23	- 40°C to + 85°C
AME8500BEETBE42Z	BDUww	4.20V	SOT-23	- 40°C to + 85°C
AME8500BEETBE42Y	BDUww	4.20V	TSOT-23	- 40°C to + 85°C
AME8500BEETBF45	BDXww	4.50V	SOT-23	- 40°C to + 85°C
AME8500BEETBF45L	BDXww	4.50V	TSOT-23	- 40°C to + 85°C
AME8500BEETBF45Z	BDXww	4.50V	SOT-23	- 40°C to + 85°C
AME8500BEETBF45Y	BDXww	4.50V	TSOT-23	- 40°C to + 85°C
AME8500AEETBE40	BEBww	4.0V	SOT-23	- 40°C to + 85°C
AME8500AEETBE40L	BEBww	4.0V	TSOT-23	- 40°C to + 85°C
AME8500AEETBE40Z	BEBww	4.0V	SOT-23	- 40°C to + 85°C
AME8500AEETBE40Y	BEBww	4.0V	TSOT-23	- 40°C to + 85°C
AME8500BEEVBE31	BEDww	3.08V	SOT-25	- 40°C to + 85°C
AME8500BEEVBE31L	BEDww	3.08V	TSOT-25	- 40°C to + 85°C
AME8500BEEVBE31Z	BEDww	3.08V	SOT-25	- 40°C to + 85°C
AME8500BEEVBE31Y	BEDww	3.08V	TSOT-25	- 40°C to + 85°C

■ Ordering Information

Part Number	Marking*	V _{TH} Voltage	Package	Operating Ambient Temperature Range
AME8500CEFTBA27	A8500C BA27www	2.70V	SOT-89	- 40°C to + 85°C
AME8500CEFTBA27Z	A8500C BA27www	2.70V	SOT-89	- 40°C to + 85°C
AME8500CEFTBA29	A8500C BA29www	2.93V	SOT-89	- 40°C to + 85°C
AME8500CEFTBA29Z	A8500C BA29www	2.93V	SOT-89	- 40°C to + 85°C
AME8500CEFTBA42	A8500C BA42www	4.20V	SOT-89	- 40°C to + 85°C
AME8500CEFTBA42Z	A8500C BA42www	4.20V	SOT-89	- 40°C to + 85°C
AME8500CEFTCD28	A8500C CD28www	2.80V	SOT-89	- 40°C to + 85°C
AME8500CEFTCD28Z	A8500C CD28www	2.80V	SOT-89	- 40°C to + 85°C
AME8500CEFTCD46	A8500C CD46www	4.63V	SOT-89	- 40°C to + 85°C
AME8500CEFTCD46Z	A8500C CD46www	4.63V	SOT-89	- 40°C to + 85°C



■ Absolute Maximum Ratings

Parameter	Maximum	Unit
Supply Voltage	7	V
Input Current, V_{IN}	20	mA
Output Current, RESET, ResetB	20	mA
Rate of Rise, V_{IN}	100	V/ μ s
ESD Classification	B*	

Caution: Stress above the listed absolute maximum rating may cause permanent damage to the device

* HBM B: 2000V~3999V

■ Recommended Operating Conditions

Parameter	Symbol	Rating	Unit
Ambient Temperature Range	T_A	- 40 to + 85	$^{\circ}$ C
Junction Temperature Range	T_J	- 40 to + 125	$^{\circ}$ C
Storage Temperature		- 65 to +150	$^{\circ}$ C

■ Thermal Information

Parameter	Package	Die Attach	Symbol	Maximum	Unit
Thermal Resistance (Junction to Case)	SOT-23**	Conductive Epoxy	θ_{JC}	81	$^{\circ}\text{C} / \text{W}$
		Non-Conductive Epoxy		140	
	SOT-25**	Non-Conductive Epoxy		140	
	SOT-89*	Conductive Epoxy		46	
		Non-Conductive Epoxy		46	
Thermal Resistance (Junction to Ambient)	SOT-23	Conductive Epoxy	θ_{JA}	260	$^{\circ}\text{C} / \text{W}$
		Non-Conductive Epoxy		280	
	SOT-25	Non-Conductive Epoxy		280	
	SOT-89	Conductive Epoxy		180	
		Non-Conductive Epoxy		180	
Internal Power Dissipation	SOT-23	Conductive Epoxy	P_D	400	mW
		Non-Conductive Epoxy		400	
	SOT-25	Non-Conductive Epoxy		400	
	SOT-89	Conductive Epoxy		550	
		Non-Conductive Epoxy		550	
Maximum Junction Temperature				150	$^{\circ}\text{C}$
Solder Iron (10 Sec)***				350	$^{\circ}\text{C}$

Caution: Stress above the listed absolute maximum rating may cause permanent damage to the device.

* Measure θ_{JC} on backside center of tab.

** Measure θ_{JC} on center of molding compound if IC has no tab.

*** MIL-STD-202G 210F

■ Electrical Specifications

$T_A = 25^{\circ}\text{C}$ unless otherwise noted

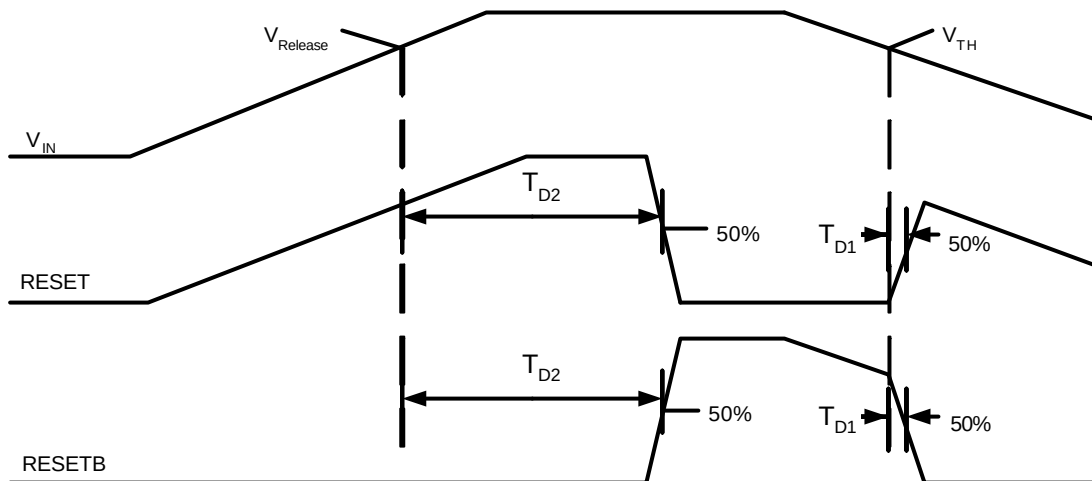
Parameter	Symbol	Test Condition		Min	Typ	Max	Units
V _{IN} Range	V _{RANGE}	T _A =-40°C~+85°C		1		5.5	V
Supply Current	I _{IN}	V _{IN} = V _{TH} *1.10				3.0	μA
		V _{IN} = 3.0V, T _A =-40°C~+85°C				5.0	
Reset Threshold	V _{TH}			V _{TH(NOM)} - 1.5%		V _{TH(NOM)} + 1.5%	mV
		T _A =-40°C~+85°C		V _{TH(NOM)} - 2.0%		V _{TH(NOM)} + 2.0%	
Hysteresis Range (Note2)	V _{HYST}	V _{Release} - V _{TH} (Note1)		10	30	60	mV
RESET Threshold Tempco (Note 2)				30	50	160	ppm
RESETB Output Voltage Low	V _{OL}	V _{IN} <V _{TH (MIN)}	I _{SINK} =1.2mA, T _A = -40°C~+85°C			0.2	V
RESET Output Voltage Low		V _{IN} >V _{TH (MAX)}					
RESETB Output Voltage High	V _{OH}	V _{IN} >V _{TH (MAX)}	I _{SOURCE} =0.5mA, V _{IN} >1.8V	0.8V _{IN}			V
			I _{SOURCE} =0.15mA, 1.8V>=V _{IN} >1.0V				
RESET Output Voltage High		V _{IN} <V _{TH (MIN)}	I _{SOURCE} =0.5mA, V _{IN} >1.8V				
			I _{SOURCE} =0.15mA, 1.8V>=V _{IN} >1.0V				
V _{IN} to Reset Delay	T _{D1}	V _{IN} = V _{TH} - 100mV, T _A = -40°C ~ +85°C			40		μS
Reset Timeout Period	T _{D2}	T _A = -40°C ~ +85°C	Version A	0.5	1.5	5	mS
			Version D	15	30	50	mS
			Version E	80	150	230	mS
			Version F	140	210	500	mS
			Version K	300	440	600	mS

Note1: The data based on $V_{TH} = 2.7\text{V}$ part type.

Note2: Guaranteed by Design



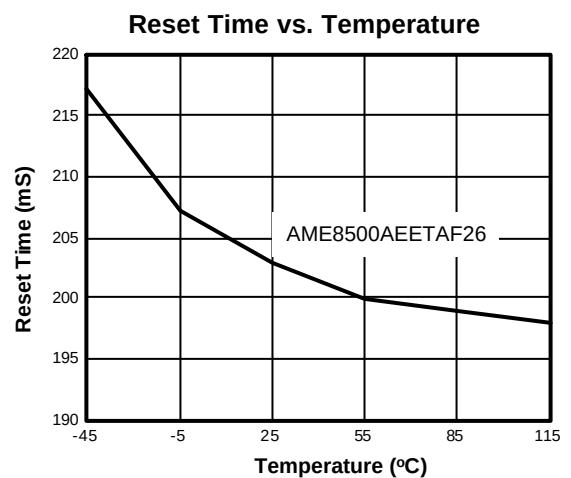
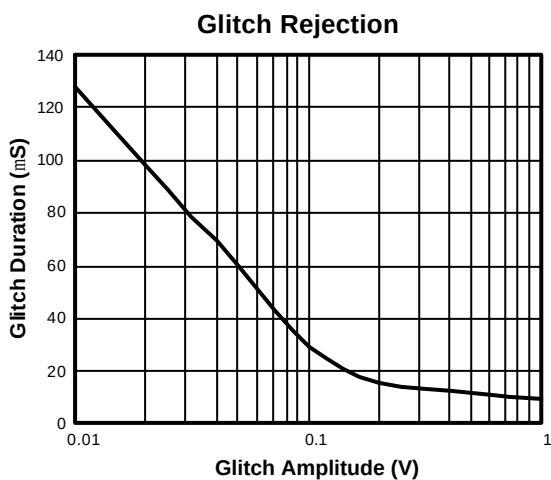
■ Timing Diagram

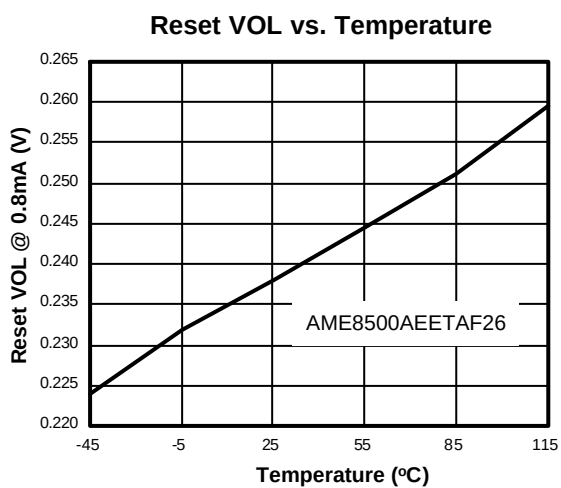
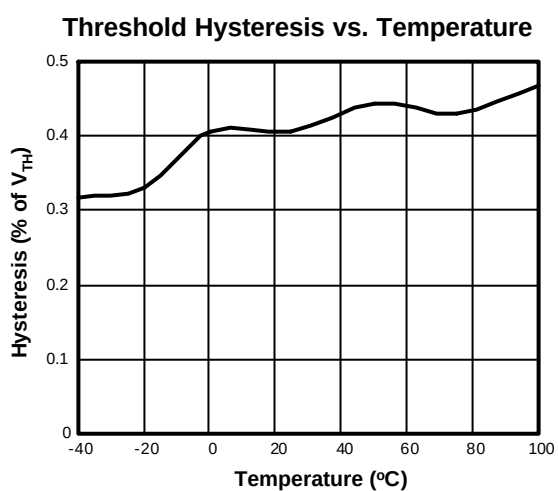
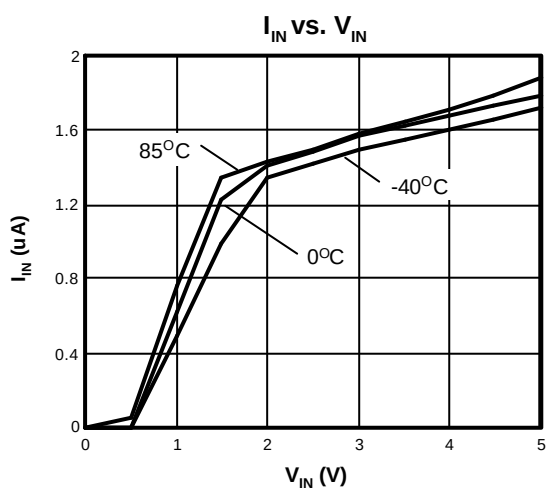
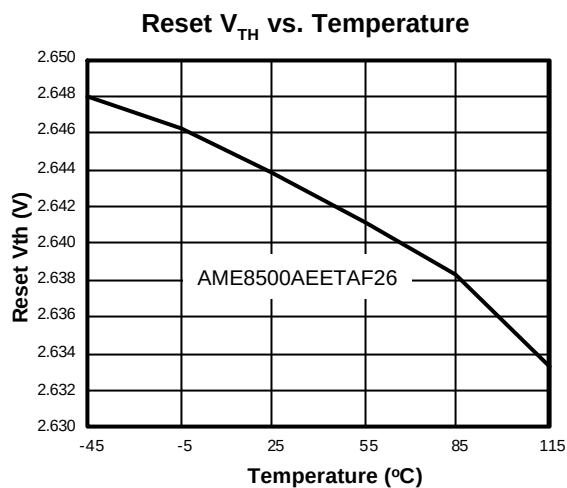
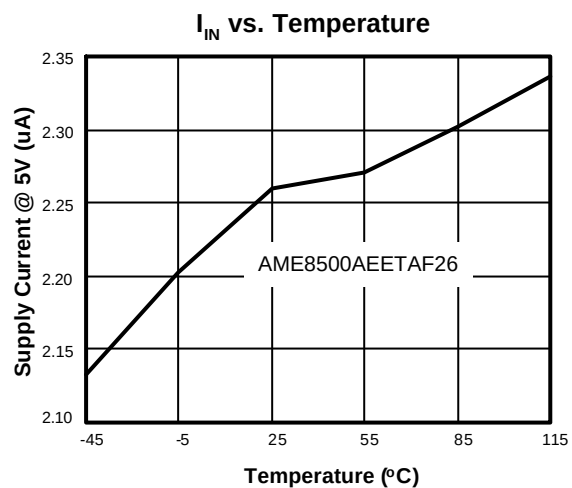


■ Applications Information

Supply Transients

These devices have a certain immunity to fast negative going transients. In the following pages the graph titled "Glitch Rejection" indicates the maximum allowable glitch amplitude and duration to avoid triggering an unintended reset. As shown in the graph shorter transients can have larger amplitudes without triggering resets.



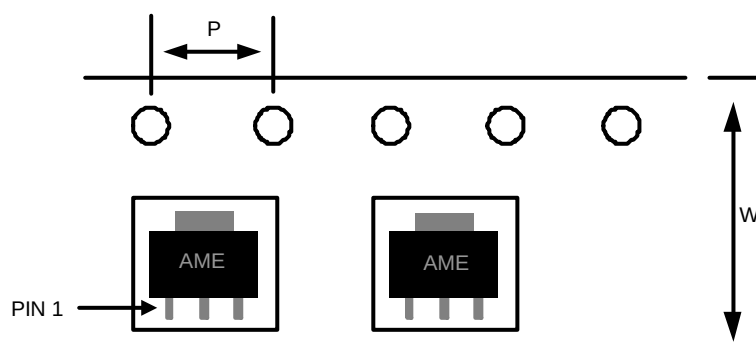


■ Date Code Rule

Marking			Date Code		Year
A	A	A	W	W	xxx0
A	A	A	W	<u>W</u>	xxx1
A	A	A	<u>W</u>	W	xxx2
A	A	A	<u>W</u>	<u>W</u>	xxx3
A	A	<u>A</u>	W	W	xxx4
A	A	<u>A</u>	W	<u>W</u>	xxx5
A	A	<u>A</u>	<u>W</u>	W	xxx6
A	A	<u>A</u>	<u>W</u>	<u>W</u>	xxx7
A	<u>A</u>	A	W	W	xxx8
A	<u>A</u>	A	W	<u>W</u>	xxx9

■ Tape and Reel Dimension

SOT-89

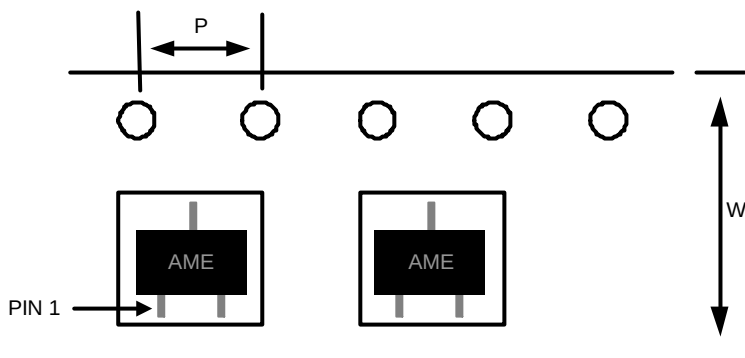


Carrier Tape, Number of Components Per Reel and Reel Size

Package	Carrier Width (W)	Pitch (P)	Part Per Full Reel	Reel Size
SOT-89	12.0±0.1 mm	4.0±0.1 mm	1000pcs	180±1 mm

■ Tape and Reel Dimension

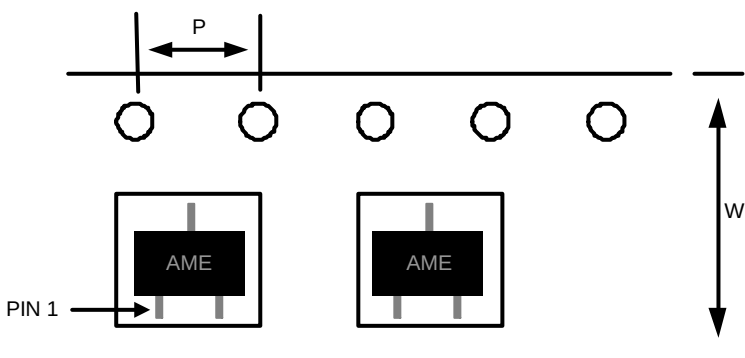
SOT-23



Carrier Tape, Number of Components Per Reel and Reel Size

Package	Carrier Width (W)	Pitch (P)	Part Per Full Reel	Reel Size
SOT-23	8.0±0.1 mm	4.0±0.1 mm	3000pcs	180±1 mm

SOT-23 (Low Profile)

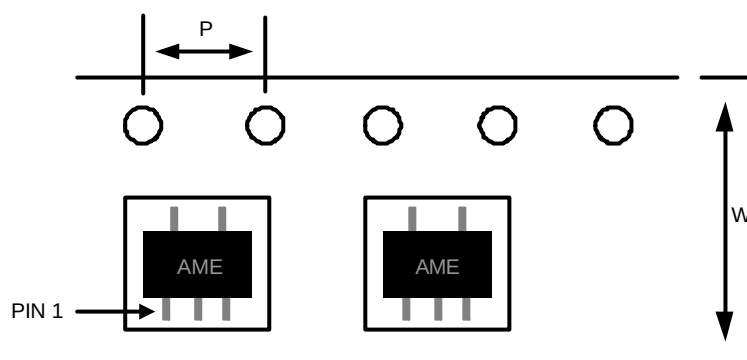


Carrier Tape, Number of Components Per Reel and Reel Size

Package	Carrier Width (W)	Pitch (P)	Part Per Full Reel	Reel Size
SOT-23 (Low Profile)	8.0±0.1 mm	4.0±0.1 mm	3000pcs	180±1 mm

■ Tape and Reel Dimension

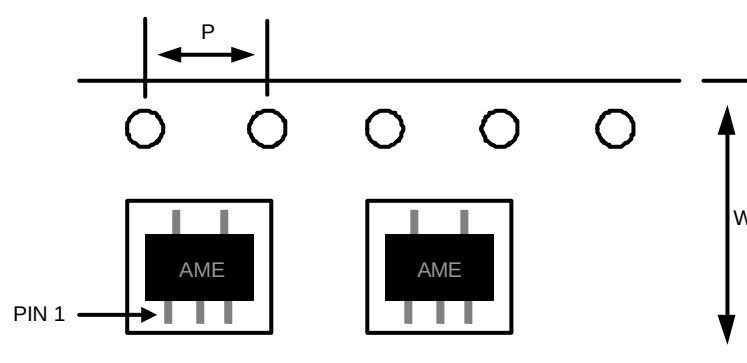
SOT-25



Carrier Tape, Number of Components Per Reel and Reel Size

Package	Carrier Width (W)	Pitch (P)	Part Per Full Reel	Reel Size
SOT-25	8.0±0.1 mm	4.0±0.1 mm	3000pcs	180±1 mm

TSOT-25

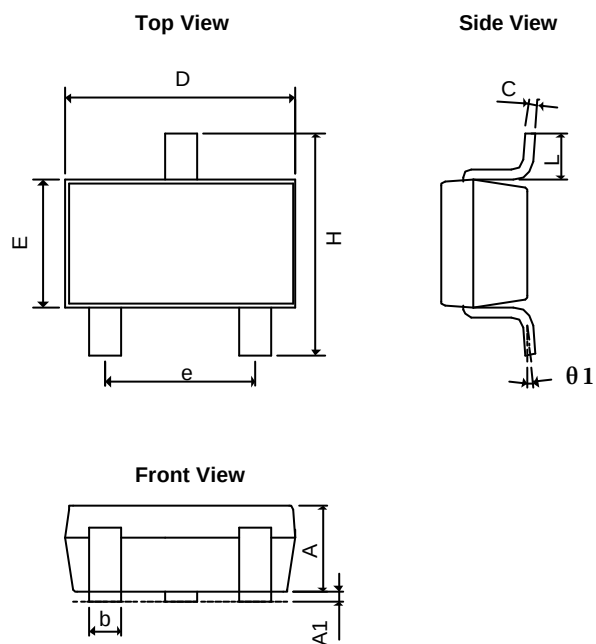


Carrier Tape, Number of Components Per Reel and Reel Size

Package	Carrier Width (W)	Pitch (P)	Part Per Full Reel	Reel Size
TSOT-25	8.0±0.1 mm	4.0±0.1 mm	3000pcs	180±1 mm

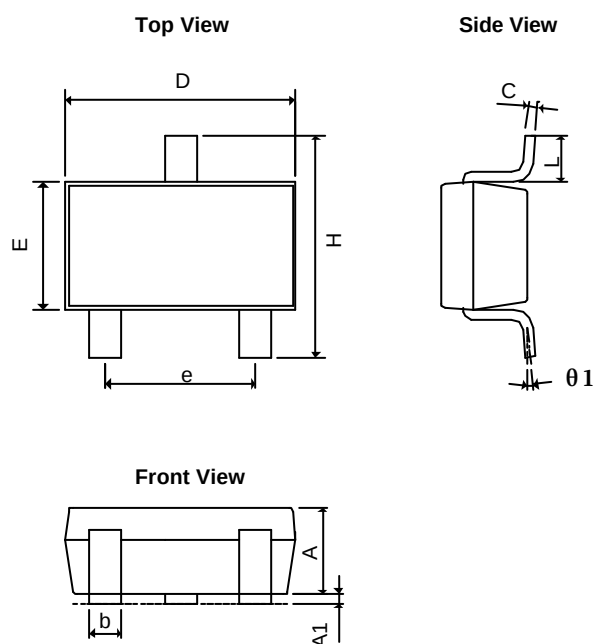
■ Package Dimension

SOT-23



SYMBOLS	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.00	1.40	0.0394	0.0551
A ₁	0.00	0.15	0.0000	0.0059
b	0.35	0.50	0.0138	0.0197
C	0.09	0.25	0.0035	0.0098
D	2.70	3.10	0.1063	0.1220
E	1.40	1.80	0.0551	0.0709
e	1.90 BSC		0.0748 BSC	
H	2.40	3.00	0.09449	0.11811
L	0.35BSC		0.0138BSC	
q1	0°	10°	0°	10°

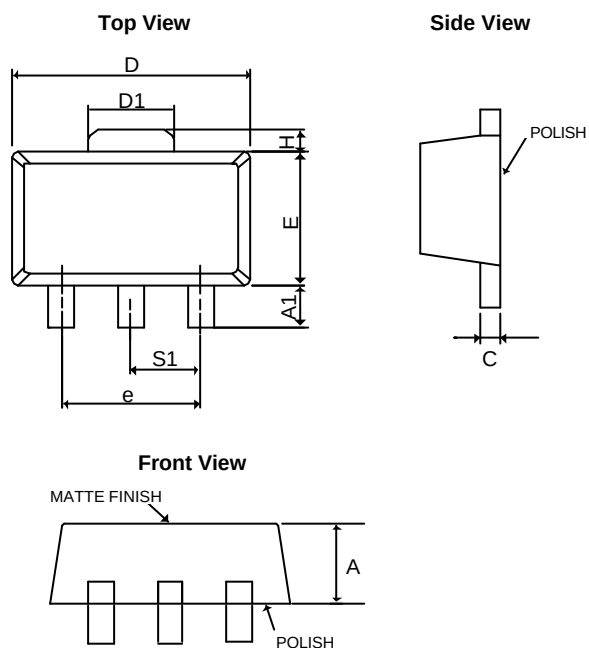
SOT-23-L



SYMBOLS	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A+A ₁	0.80	1.30	0.0315	0.0512
b	0.35	0.50	0.0138	0.0197
C	0.08	0.25	0.0031	0.0098
D	2.70	3.10	0.1063	0.1220
E	1.20	1.80	0.0472	0.0709
e	1.90 BSC		0.0748 BSC	
H	2.40	3.00	0.09449	0.11811
L	0.35BSC		0.0138BSC	
q1	0°	10°	0°	10°

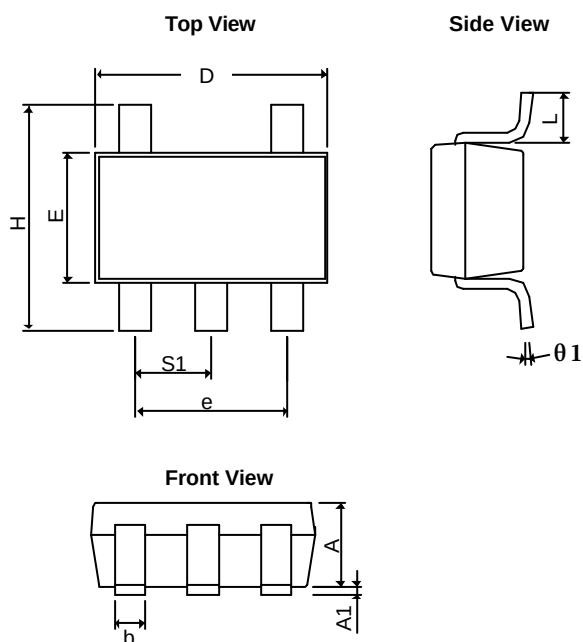
■ Package Dimension

SOT-89



SYMBOLS	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.39	1.60	0.05472	0.06299
A₁	0.8REF		0.0315REF	
C	0.35	0.44	0.01378	0.01732
D	4.39	4.60	0.17283	0.1811
D₁	1.35	1.83	0.05315	0.07205
E	2.28	3.60	0.08976	0.14173
e	3.00REF		0.1181REF	
H	0.70REF		0.0276REF	
S1	1.50REF		0.0590REF	

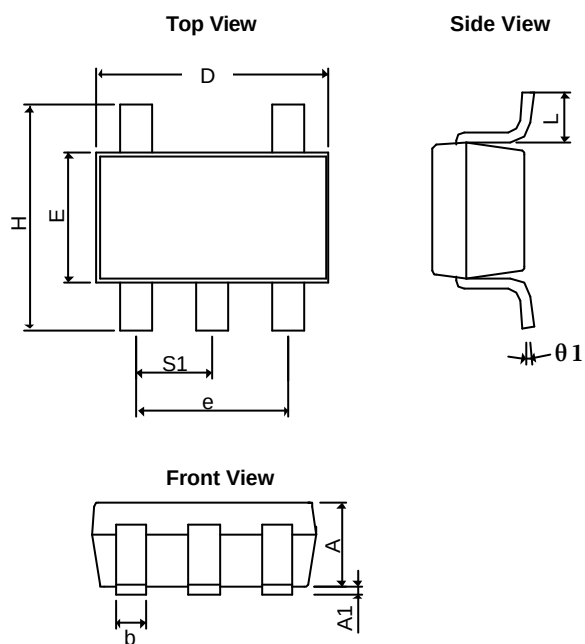
SOT-25



SYMBOLS	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	1.20REF		0.0472REF	
A₁	0.00	0.15	0.0000	0.0059
b	0.30	0.55	0.0118	0.0217
D	2.70	3.10	0.1063	0.1220
E	1.40	1.80	0.0551	0.0709
e	1.90 BSC		0.07480 BSC	
H	2.60	3.00	0.10236	0.11811
L	0.37BSC		0.0146BSC	
q1	0°	10°	0°	10°
S₁	0.95BSC		0.0374BSC	

■ Package Dimension

TSOT-25



SYMBOLS	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
$A+A_1$	0.90	1.25	0.0354	0.0492
b	0.30	0.50	0.0118	0.0197
D	2.70	3.10	0.1063	0.1220
E	1.40	1.80	0.0551	0.0709
e	1.90 BSC		0.07480 BSC	
H	2.40	3.00	0.09449	0.11811
L	0.35BSC		0.0138BSC	
$q1$	0°	10°	0°	10°
S_1	0.95BSC		0.0374BSC	



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Corporate Headquarter
AME, Inc.

2F, 302 Rui-Guang Road, Nei-Hu District
Taipei 114, Taiwan.
Tel: 886 2 2627-8687
Fax: 886 2 2659-2989

U.S.A (Subsidiary)
Analog Microelectronics, Inc.

3100 De La Cruz Blvd., Suite 201
Santa Clara, CA. 95054-2046
Tel : (408) 988-2388
Fax: (408) 988-2489



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