

CTC 1A1-1A7 RECTIFIER Datasheet

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FEATURES

Diffused junction

Low forward voltage drop

Low reverse leakage current

High current capability

EXceeds environmental standards of MIL-S-195000/228

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PLASTIC SILICON RECTIFIERS

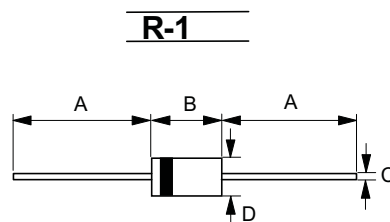
REVERSE VOLTAGE - 50 to 1000 Volts
FORWARD CURRENT - 1.0 Ampere

FEATURES

- Diffused junction
- Low forward voltage drop
- Low reverse leakage current
- High current capability
- EXceeds environmental standards of MIL-S-195000/228

MECHANICAL DATA

- Case : R-1 molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.0064 ounces, 0.181 grams
- Mounting position : Any



R-1		
Dim.	Min.	Max.
A	20.0	-
B	2.00	3.50
C	0.50 $\varnothing$	0.60 $\varnothing$
D	2.20 $\varnothing$	2.60 $\varnothing$
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	1A1	1A2	1A3	1A4	1A5	1A6	1A7	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T _A =25°C	I _(AV)	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC Method)	I _{FSM}	30							A
Maximum forward Voltage at 1.0A DC	V _F	1.1							V
Maximum DC Reverse Current at Rated DC Blocking Voltage @T _J =25°C @T _J =100°C	I _R	5 500							uA
Typical Junction Capacitance (Note 1)	C _J	15							pF
Typical Thermal Resistance (Note 2)	R _{θJA}	60							°C/W
Operating Temperature Range	T _J	-55 to +150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C

NOTES : 1.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

2.Thermal Resistance Junction to Ambient.

3.Thermal Resistance Junction to Case at 9.5mm Lead Length.PCB Mounted JEDEC Registered Value.

RATINGS AND CHARACTERISTIC CURVES

AVERAGE FORWARD RECTIFIED CURRENT AMPERES

FIG.1- MAXIMUM FORWARD CURRENT DERATING CURVE

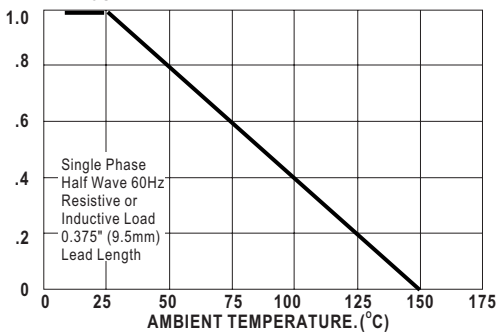


FIG.2- TYPICAL FORWARD CHARACTERISTICS

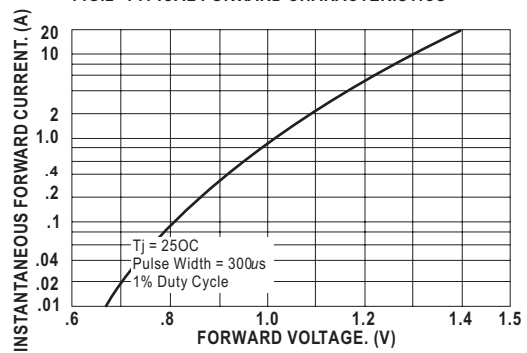


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

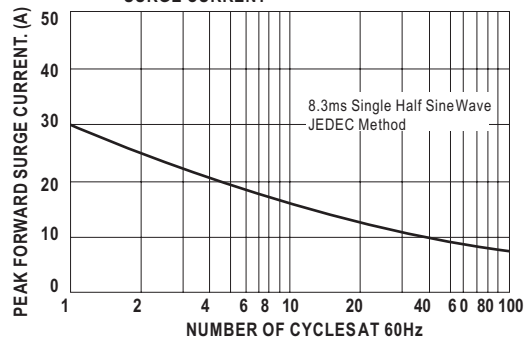


FIG.4- TYPICAL JUNCTION CAPACITANCE

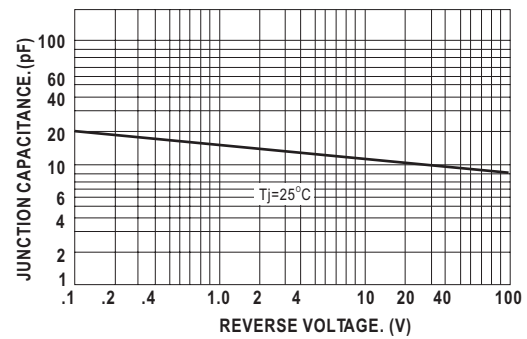


FIG.5- TYPICAL REVERSE CHARACTERISTICS

