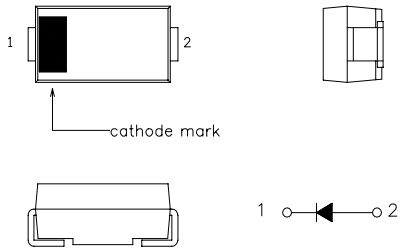
Nihon Inter Electronics Corporation

DIODE Type : EC10DS4

FEATURES

* Miniature Size,Surface Mount Device
* High Surge Capability
* Low Forward Voltage Drop
* Low Reverse Leakage Current
* Packaged in 12mm Tape and Reel
* Not Rolling During Assembly

OUTLINE DRAWING



Maximum Ratings

Approx Net Weight:0.06g

Rating	Symbol	EC10DS4			Unit
Repetitive Peak Reverse Voltage	V_{RRM}	400			V
Non-repetitive Peak Reverse Voltage	V_{RSM}	600			V
Average Rectified Output Current	I_O	0.74	Ta=25 ℃ *1	50Hz Half Sine Wave Resistive Load	A
		1.0	Ta=25 ℃ *2		
RMS Forward Current	$I_{F(RMS)}$	1.57			A
Surge Forward Current	I_{FSM}	25	50Hz Half Sine Wave,1cycle Non-repetitive		A
Operating JunctionTemperature Range	T_{jw}	-40 to +150			℃
Storage Temperature Range	T_{stg}	-40 to +150			℃

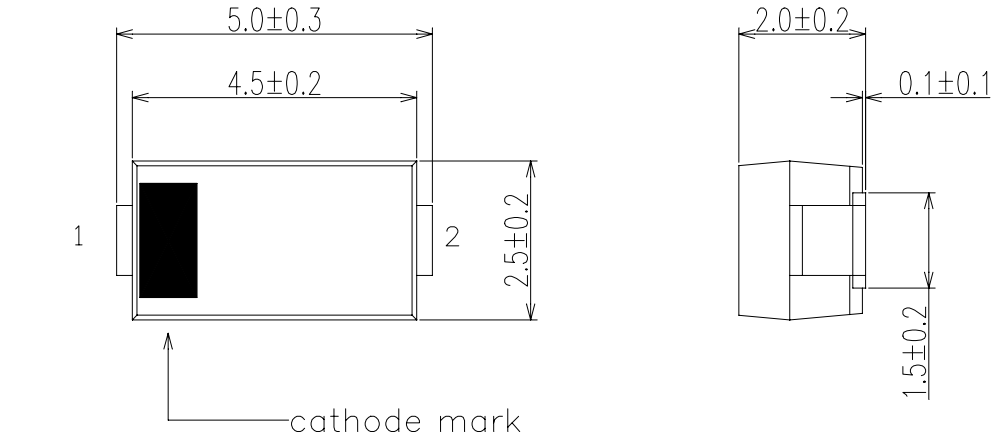
Electrical • Thermal Characteristics

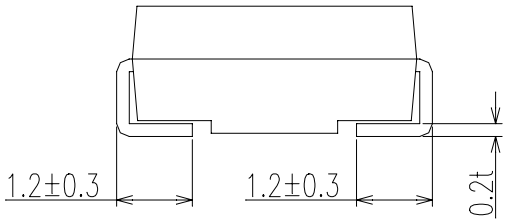
Characteristics	Symbol	Conditions		Min.	Typ.	Max.	Unit
Peak Reverse Current	I_{RM}	Tj= 25℃, V_{RM}= V_{RRM}		-	-	10	μA
Peak Forward Voltage	V_{FM}	Tj= 25℃, I_{FM}= 1.0A		-	-	1.1	V
Thermal Resistance	$Rth_{(j-a)}$	Junction to Ambient	*1	-	-	157	℃/W
			*2	-	-	108	

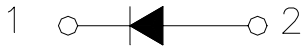
*1 Glass Epoxy Substrate Mounted (Soldering Lands=2x2mm,Both Sides)

*2 Alumina Substrate Mounted (Soldering Lands=2x2mm,Both Sides)

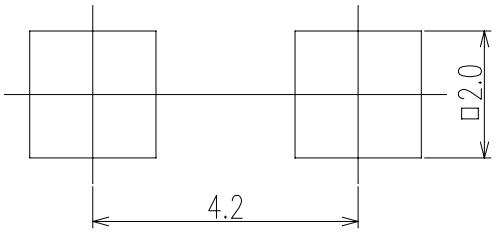
EC10D*_ OUTLINE DRAWING (Dimensions in mm)



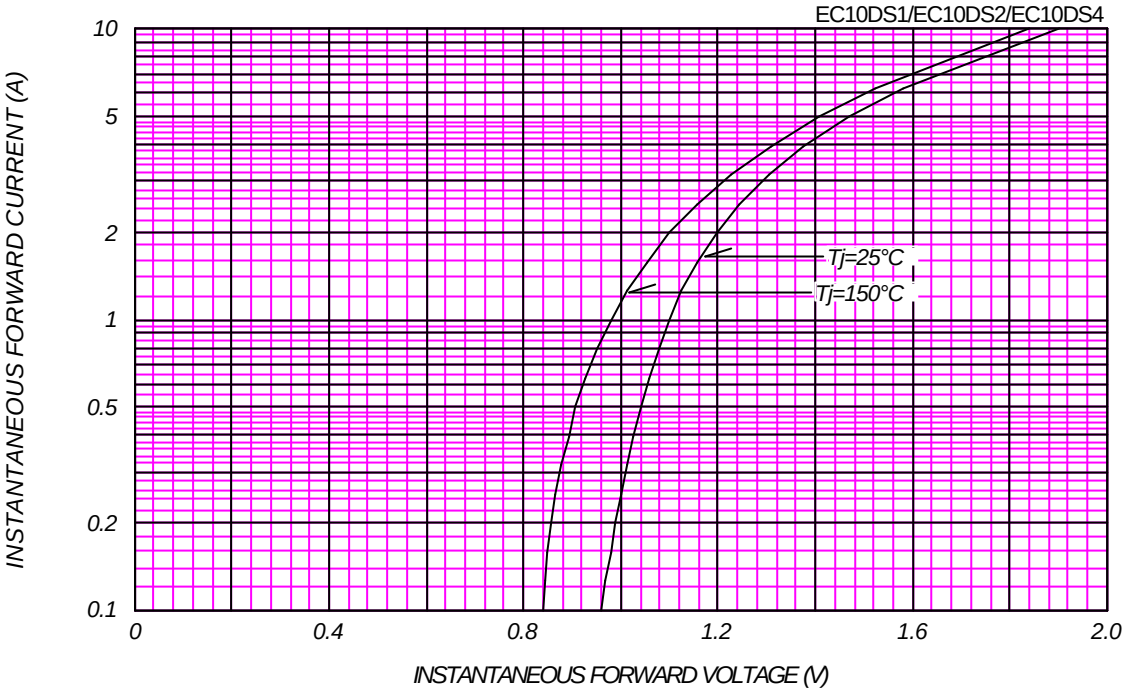




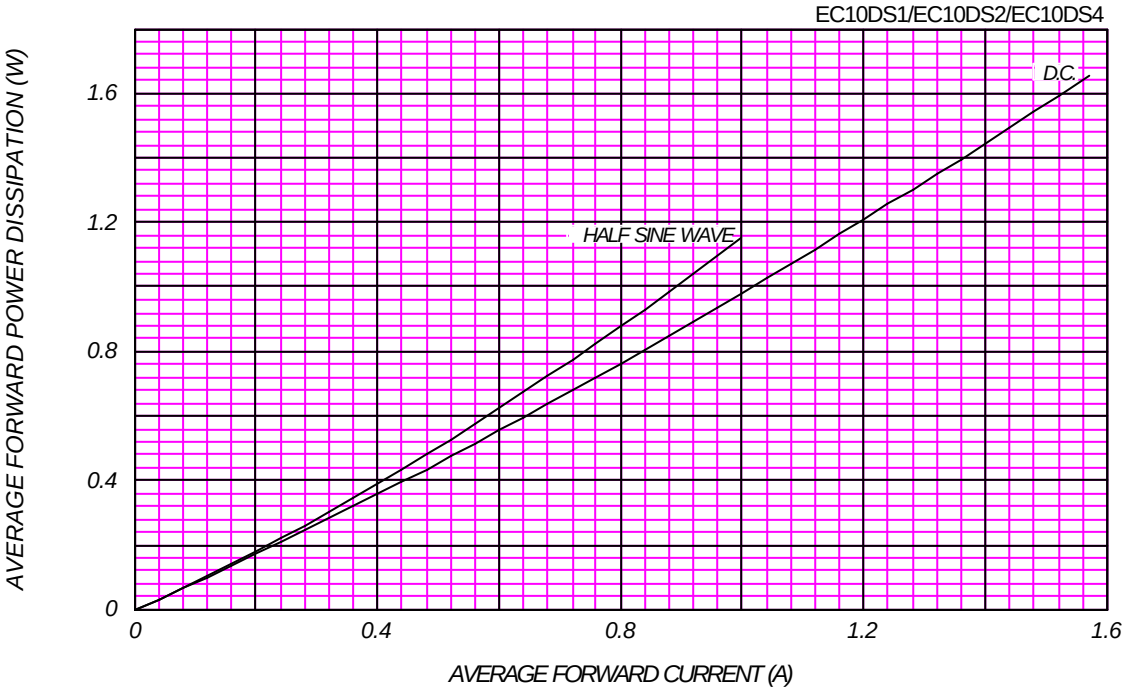
SOLDERING PAD



FORWARD CURRENT VS. VOLTAGE



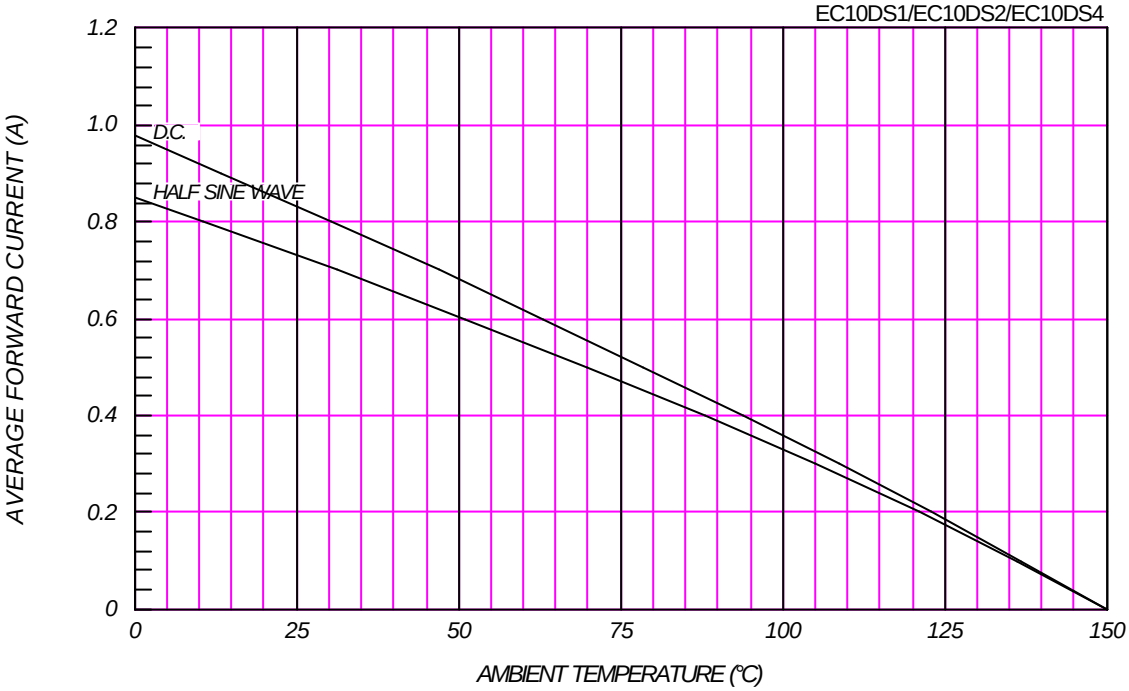
AVERAGE FORWARD POWER DISSIPATION



AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

Glass-Epoxy Substrate Mounted(Soldering Land=2×2mm)

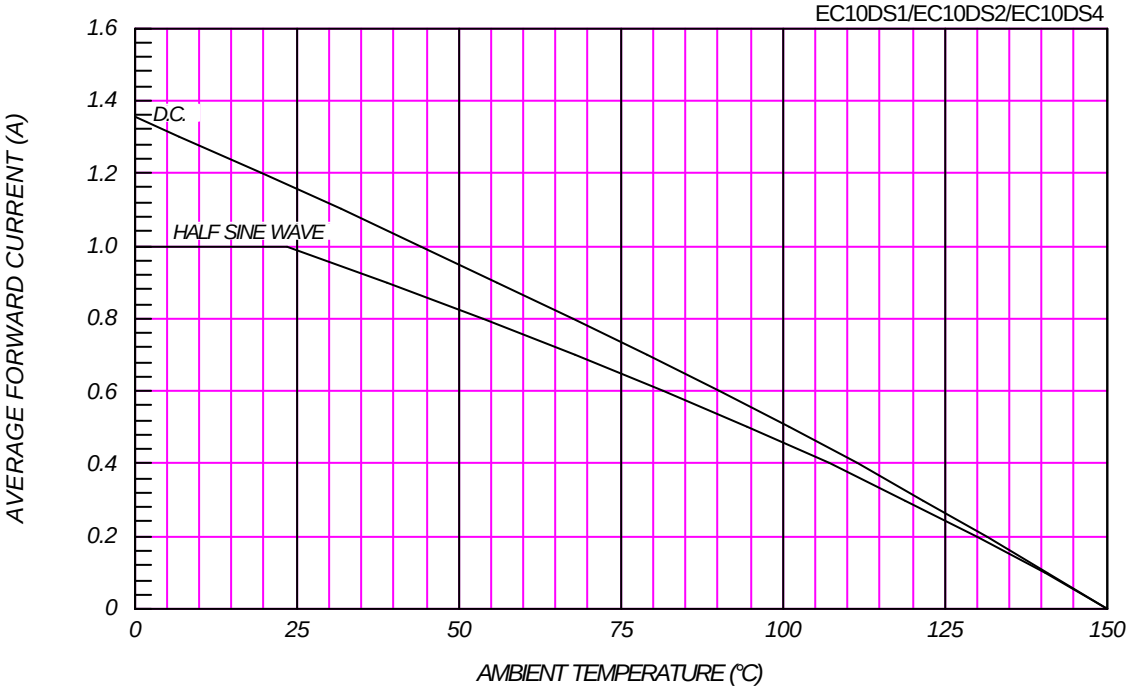
EC10DS1/EC10DS2/EC10DS4

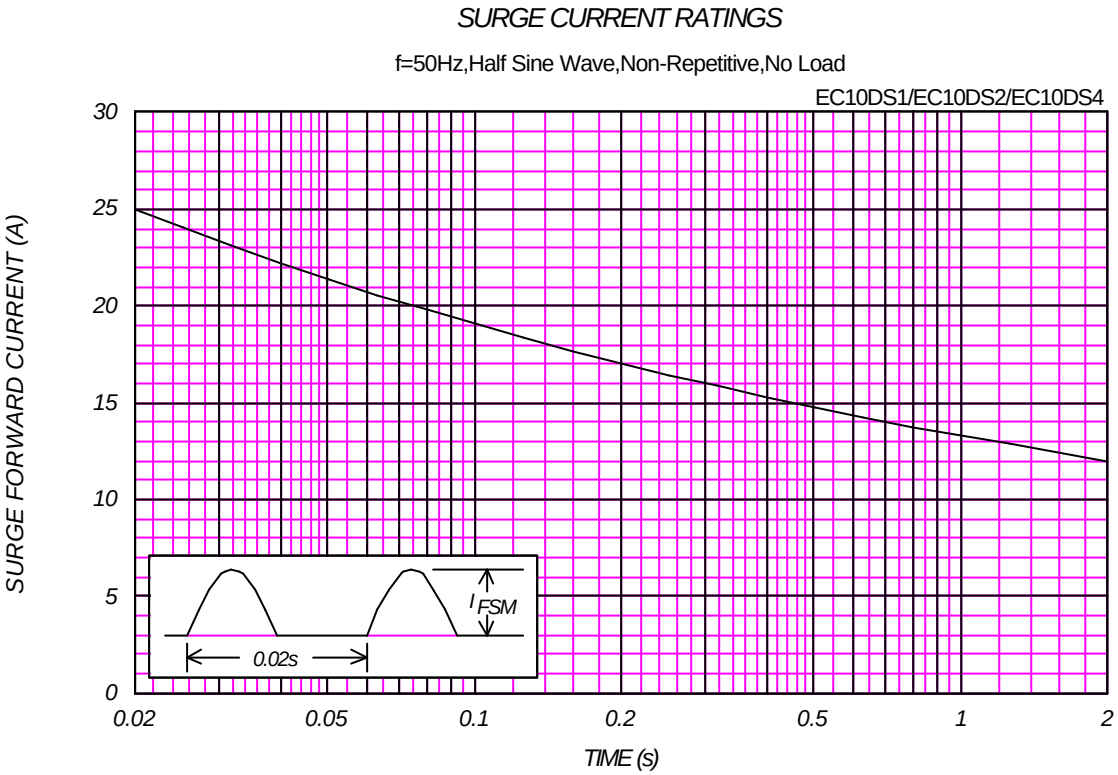


AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

Alumina Substrate Mounted(Soldering Land=2×2mm)

EC10DS1/EC10DS2/EC10DS4




SURGE CURRENT RATINGS
f=50Hz,Half Sine Wave,Non-Repetitive,No Load
EC10DS1/EC10DS2/EC10DS4
SURGE FORWARD CURRENT (A)
30
25
20
15
10
5
0
0.02
0.05
0.1
0.2
0.5
1
2
TIME (s)
I FSM
0.02s