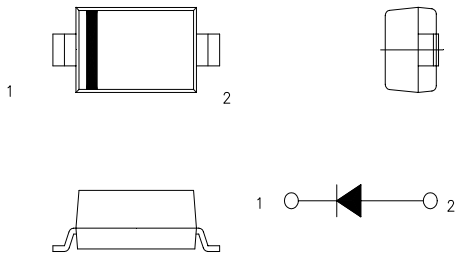
Nihon Inter Electronics Corporation

SBD Type : EP05H10

FEATURES

* JEDEC SOD-123 Package
* Very Low profile 1.1mm Max
* Low Forward Voltage Drop
* Low Power Loss,High Efficiency
* High Surge Capability
* Low Thermal Resistance
* Packaged in 8mm Tape and Reel

OUTLINE DRAWING



Maximum Ratings

Approx Net Weight:0.011g

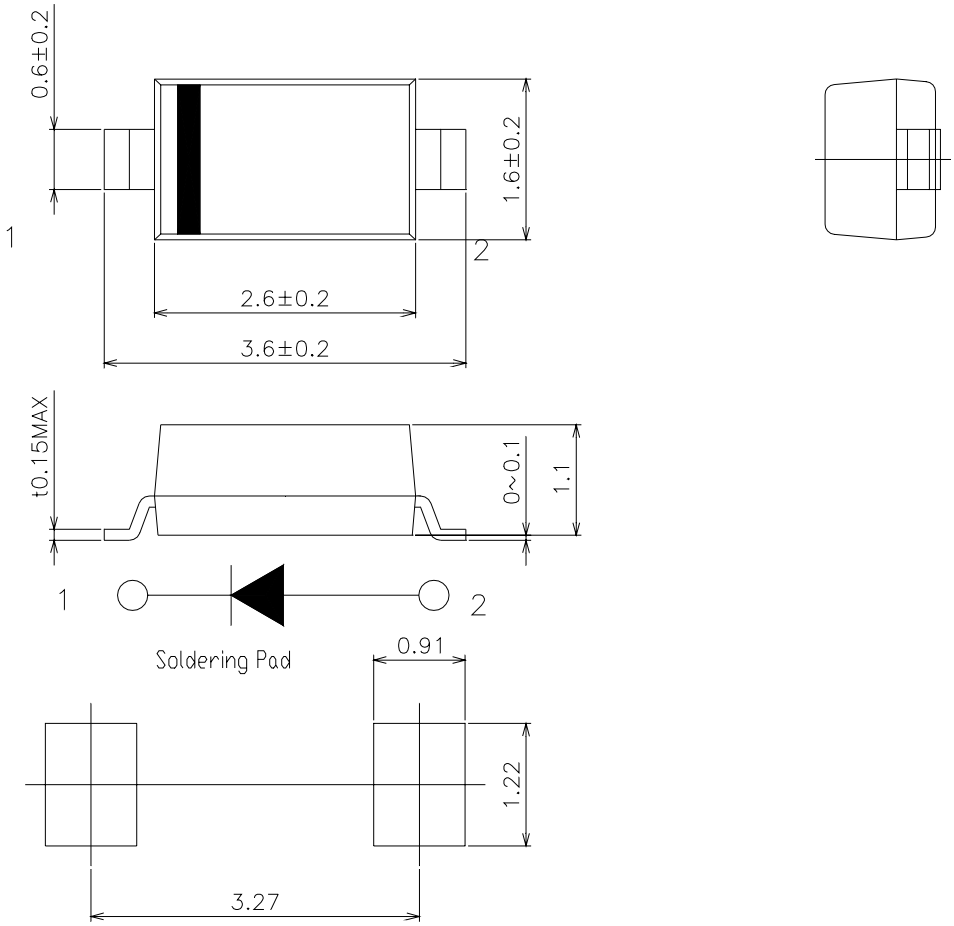
Rating	Symbol	EP05H10			Unit
Repetitive Peak Reverse Voltage	V_{RRM}	100			V
Average Rectified Output Current	I_O	0.48	Ta=25℃ ＊1	50Hz Half Sine Wave, Resistive Load	A
		0.50	Tl=118℃		
RMS Forward Current	$I_{F(RMS)}$	0.785			A
Surge Forward Current	I_{FSM}	8	50Hz Half Sine Wave,1cycle Non-repetitive		A
Operating JunctionTemperature Range	T_{jw}	-40 to +150			℃
Storage Temperature Range	T_{stg}	-40 to +150			℃

Electrical • Thermal Characteristics

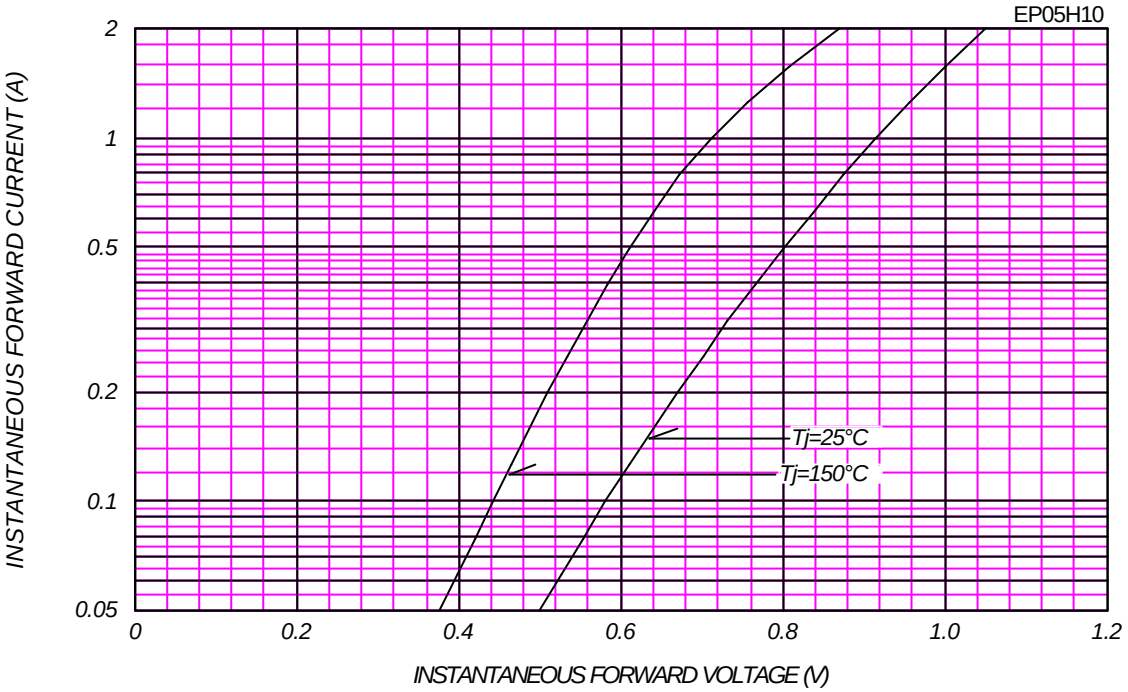
Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I_{RM}	Tj= 25℃, V_{RM}= V_{RRM}	-	-	50	μA
Peak Forward Voltage	V_{FM}	Tj= 25℃, I_{FM}=0.5A	-	-	0.8	V
Thermal Resistance	$Rth_{(j-a)}$	Junction to Ambient *	-	-	300	℃/W
	$Rth_{(j-l)}$	Junction to Lead	-	-	70	

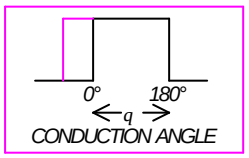
*1: Glass Epoxy Substrate Mounted (Soldering Lands=1x1mm,Both Sides)
(Tl: Lead Temperature)

EP05H10 OUTLINE DRAWING (Dimensions in mm)

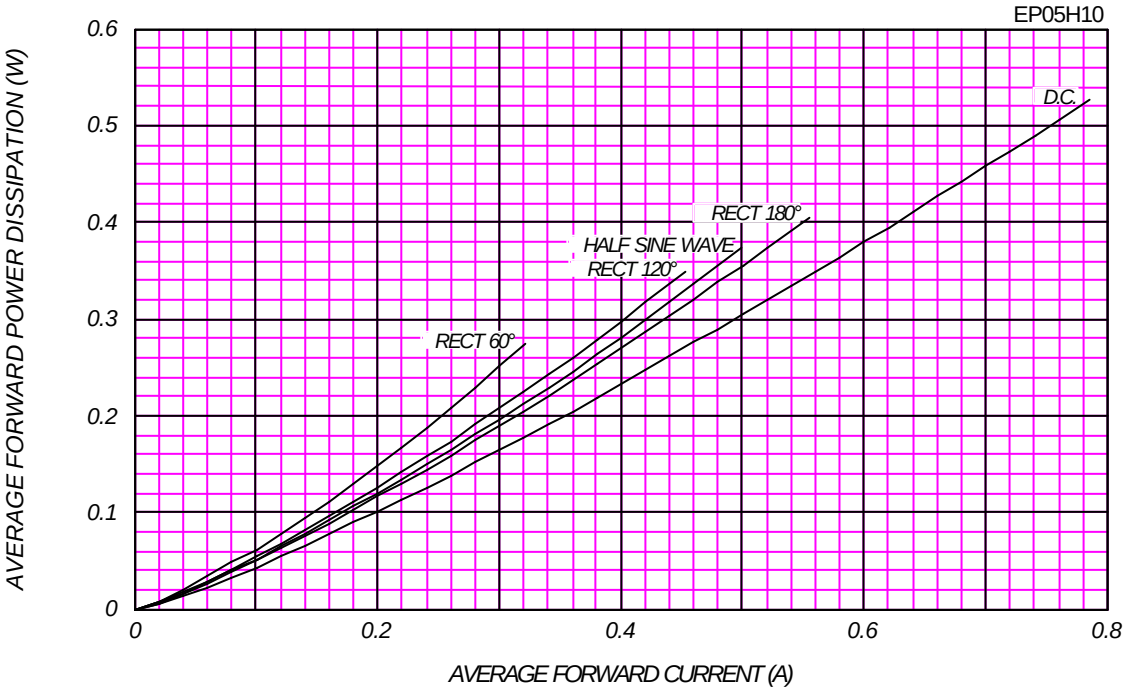


FORWARD CURRENT VS. VOLTAGE



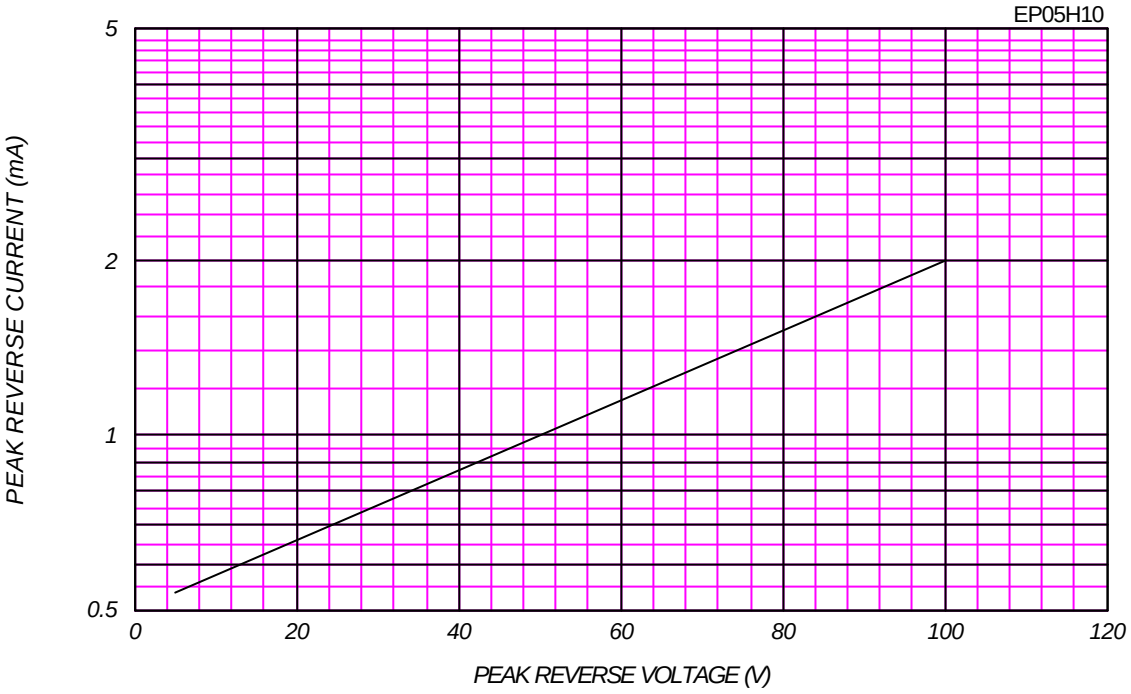


AVERAGE FORWARD POWER DISSIPATION

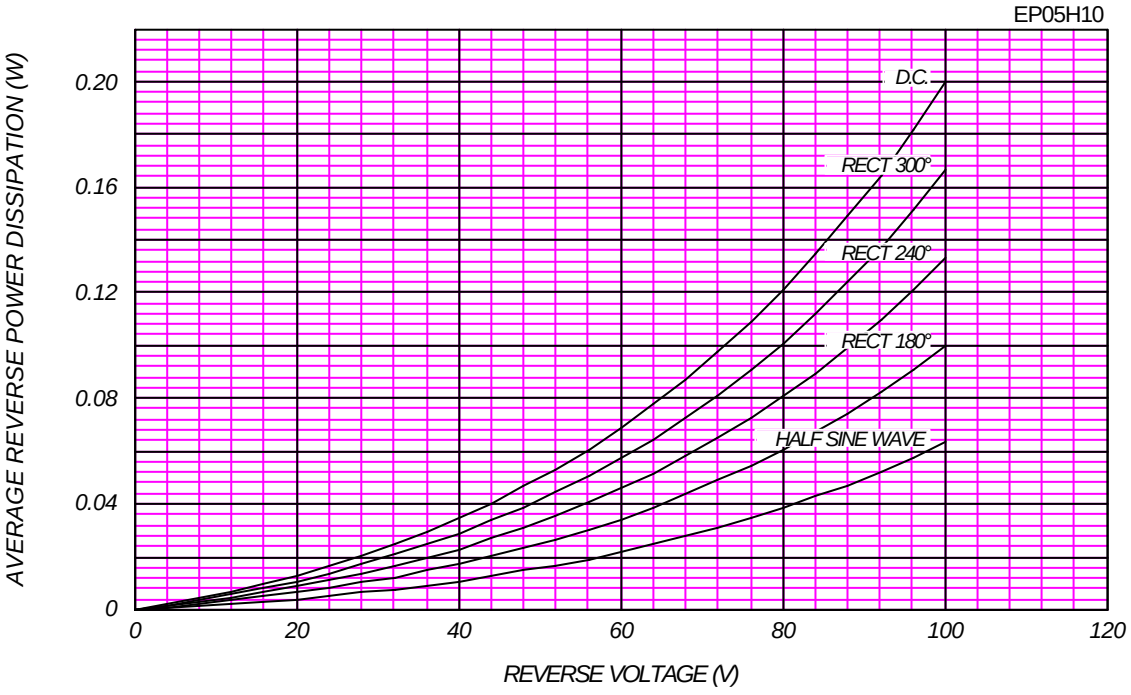


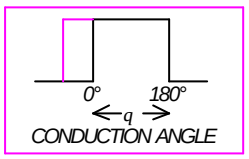
PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

Tj= 150 °C



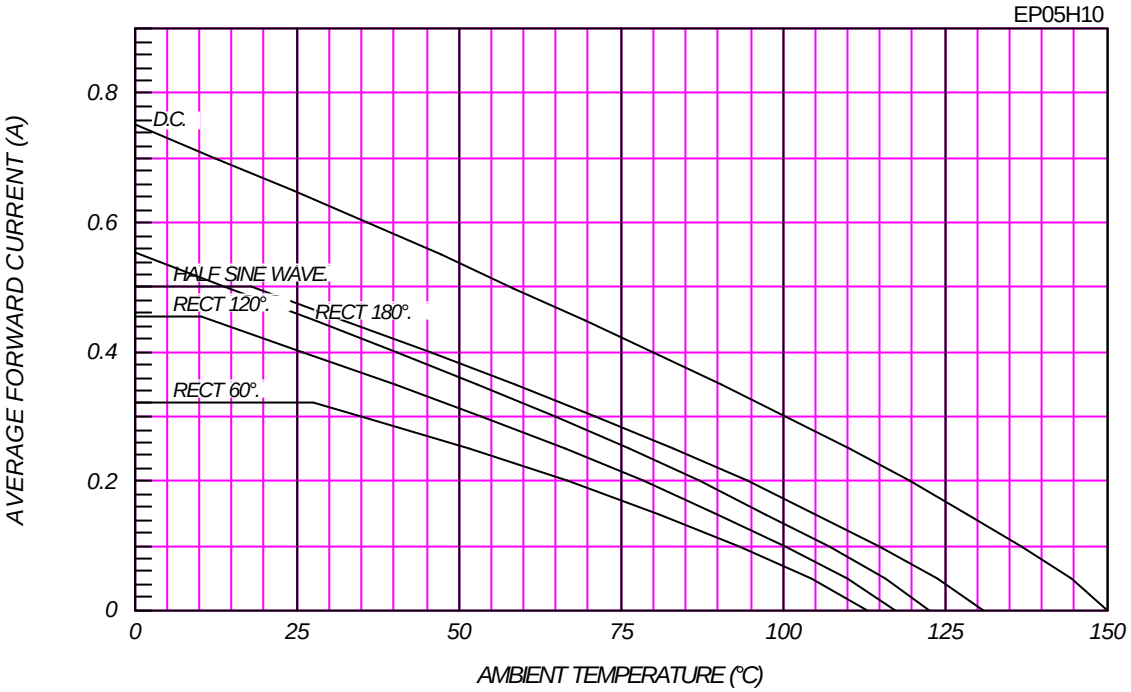
AVERAGE REVERSE POWER DISSIPATION

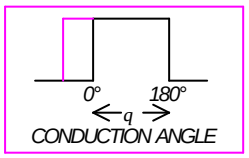




AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

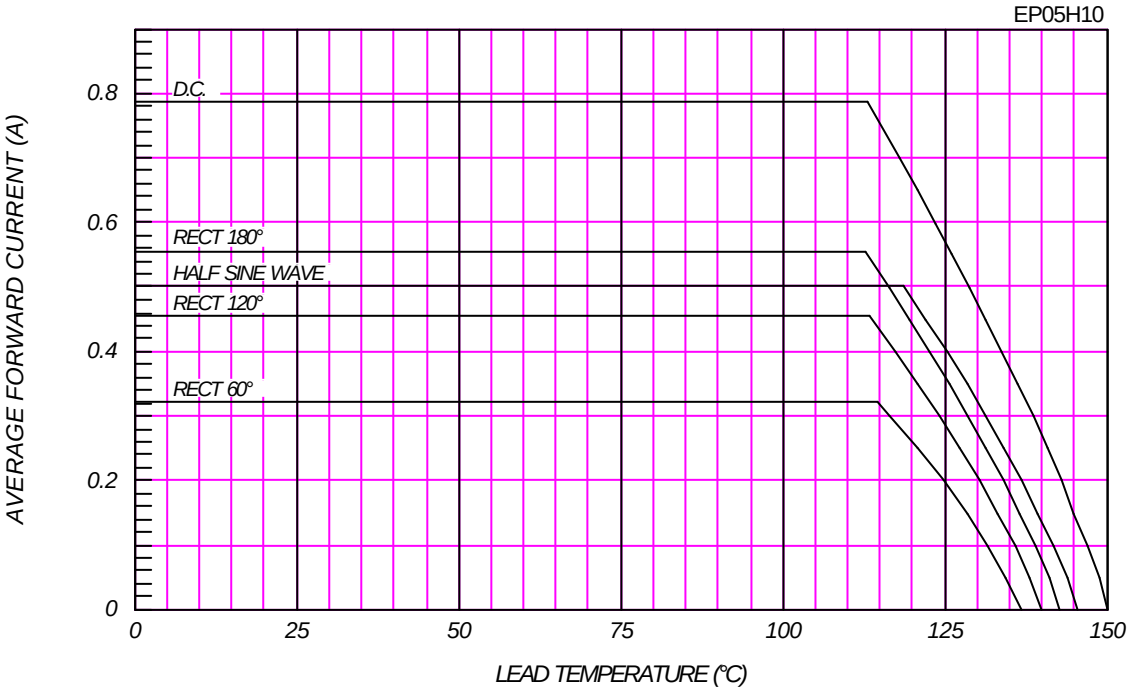
Glass-Epoxy Substrate Mounted (Soldering Land=1×1mm), V_{RM}=100V





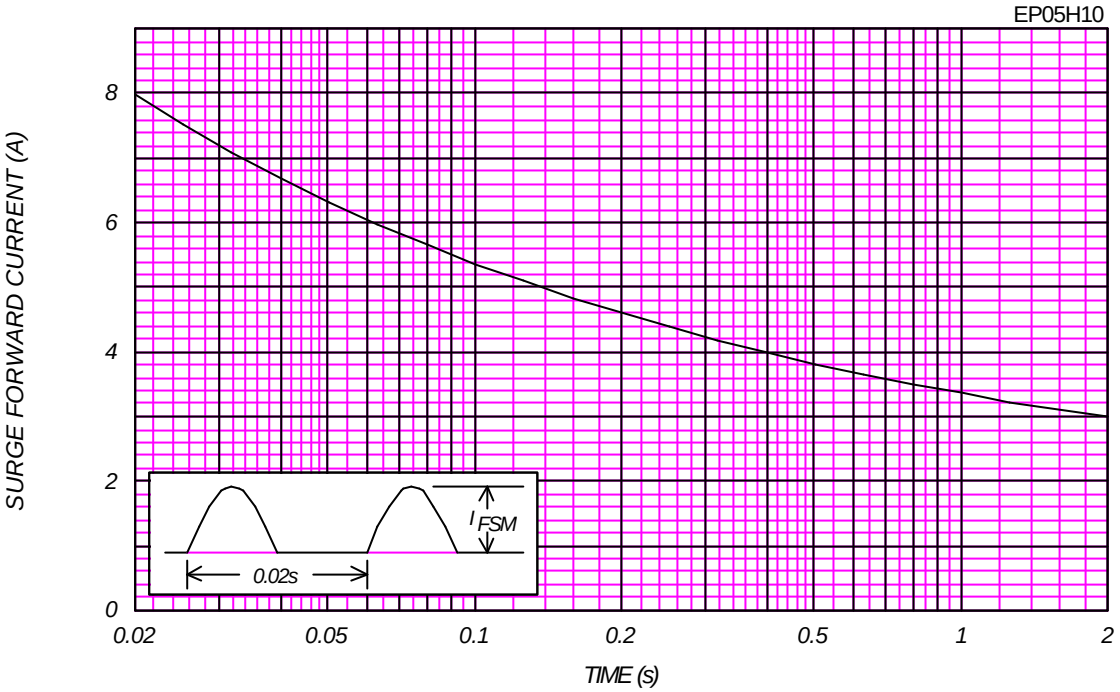
AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE

V_{RM}=100V



SURGE CURRENT RATINGS

f=50Hz,Half Sine Wave,Non-Repetitive,No Load



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

Tj=25° C,Vm=20mV$_{RMS}$,f=100kHz,Typical Value