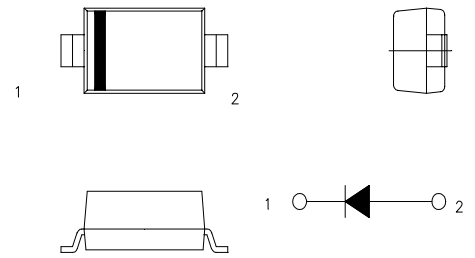


# SBD Type : EP05Q04

## 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

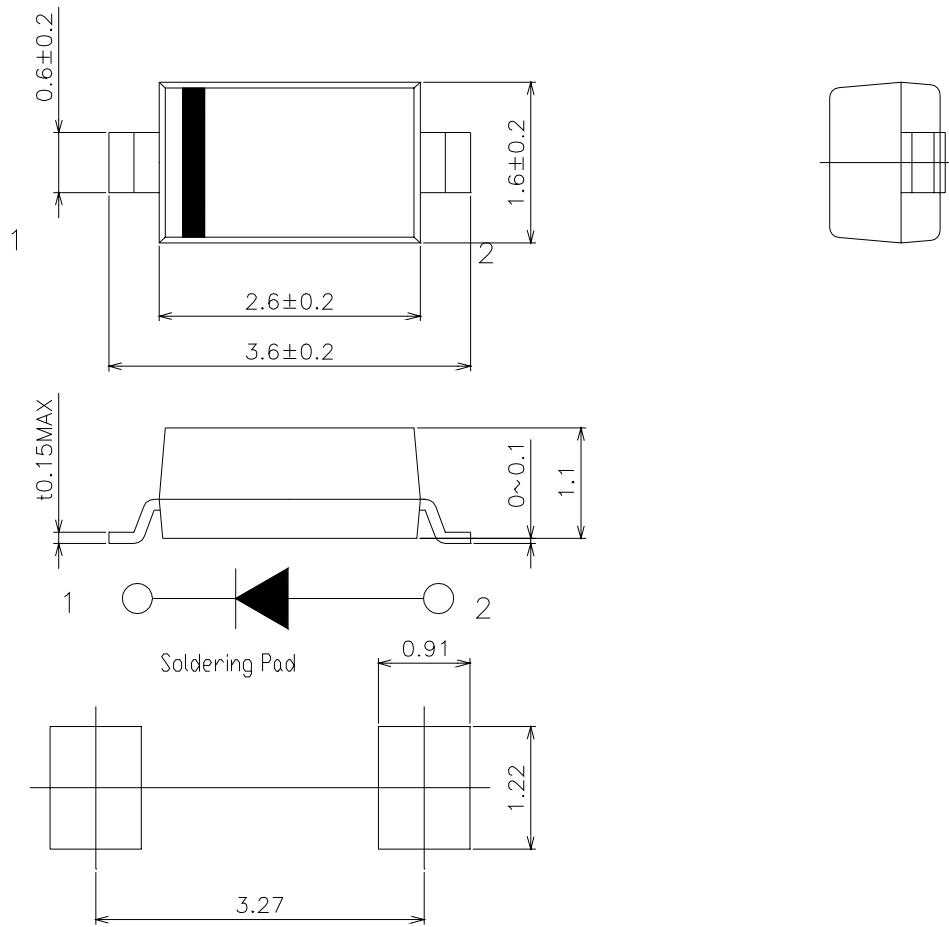
Rating	Symbol	EP05Q04		Unit
Repetitive Peak Reverse Voltage	$V_{RRM}$	40		V
Average Rectified Output Current	$I_O$	0.43	$T_a=25^{\circ}C$ * 1 50Hz Half Sine Wave,	A
		0.50	$T_l=110^{\circ}C$ Resistive Load	
RMS Forward Current	$I_{F(RMS)}$	0.785		A
Surge Forward Current	$I_{FSM}$	8	50Hz Half Sine Wave,1cycle Non-repetitive	A
Operating JunctionTemperature Range	$T_{jw}$	-40 to +150		$^{\circ}C$
Storage Temperature Range	$T_{stg}$	-40 to +150		$^{\circ}C$

## Electrical • Thermal Characteristics

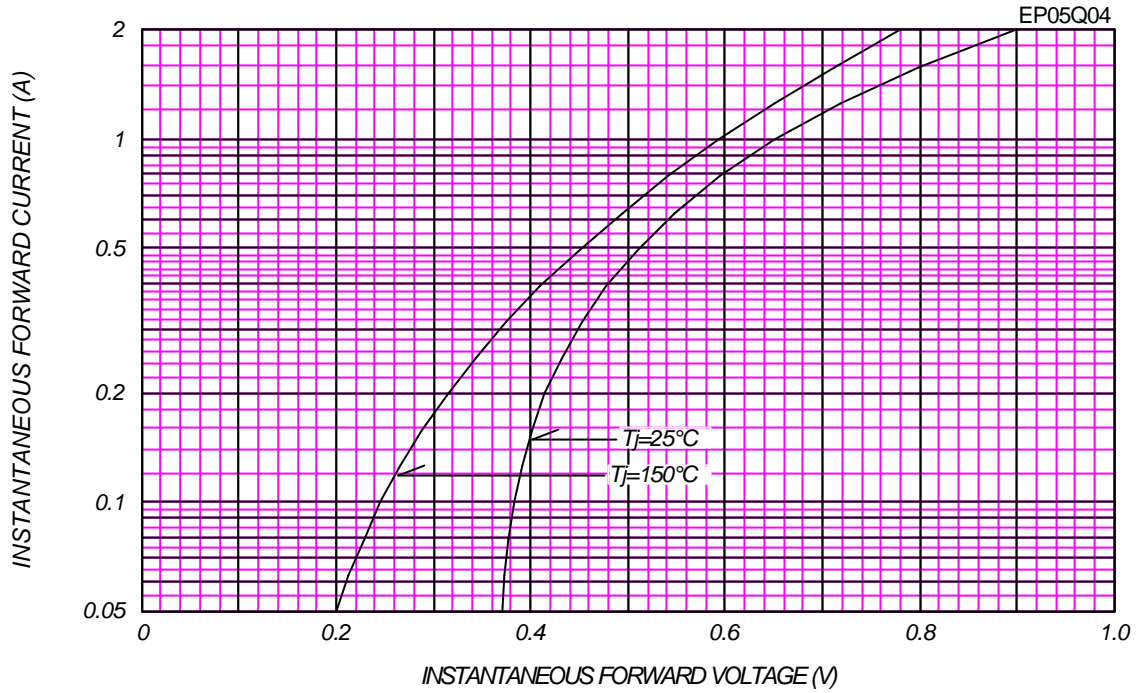
Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	$I_{RM}$	$T_j= 25^{\circ}C, V_{RM}= V_{RRM}$	-	-	100	$\mu A$
Peak Forward Voltage	$V_{FM}$	$T_j= 25^{\circ}C, I_{FM}=0.5A$	-	-	0.51	V
Thermal Resistance	$R_{th(j-a)}$	Junction to Ambient *	-	-	300	$^{\circ}C/W$
	$R_{th(j-l)}$	Junction to Lead	-	-	70	

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

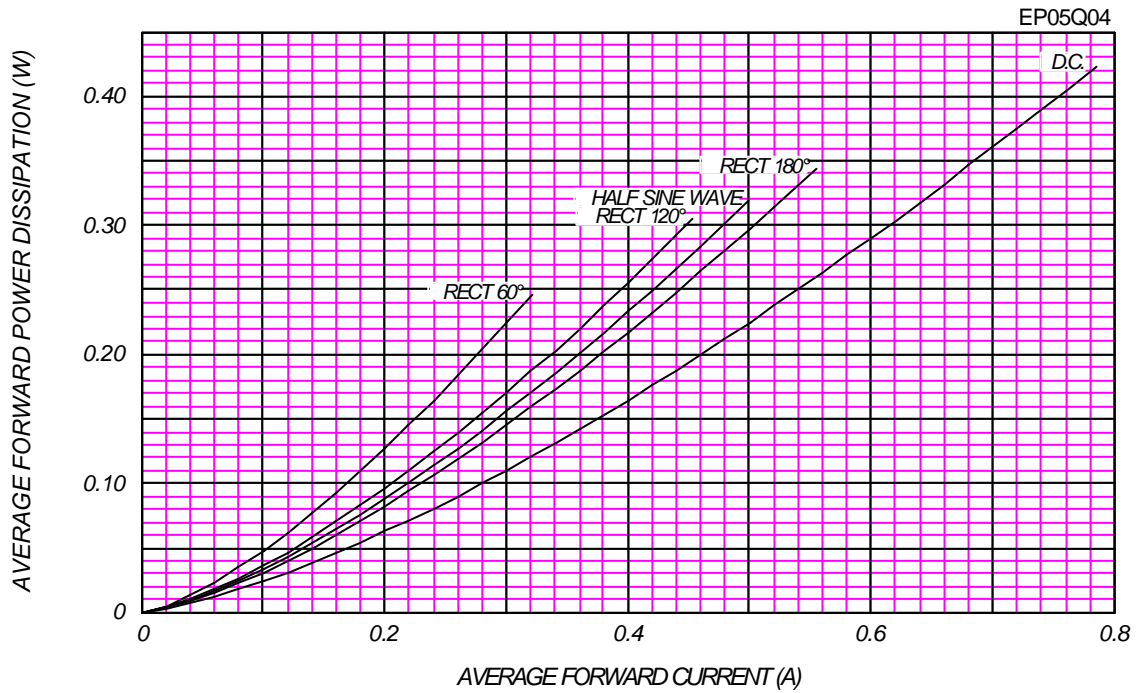
EP05Q04 OUTLINE DRAWING (Dimensions in mm)



FORWARD CURRENT VS. VOLTAGE



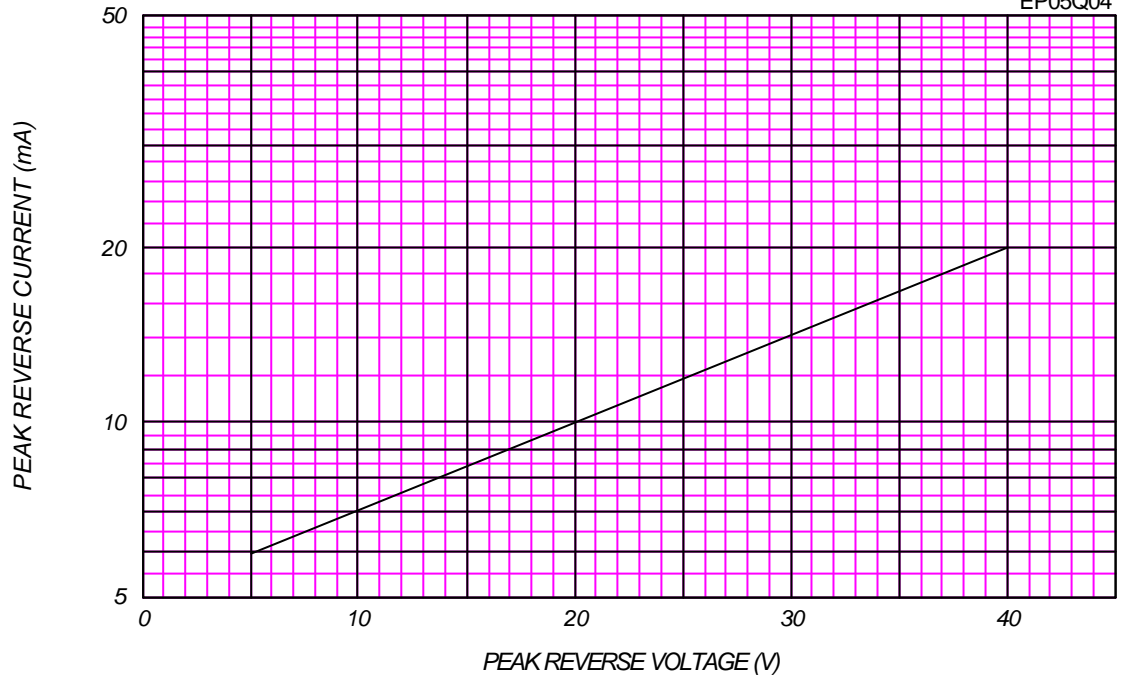
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

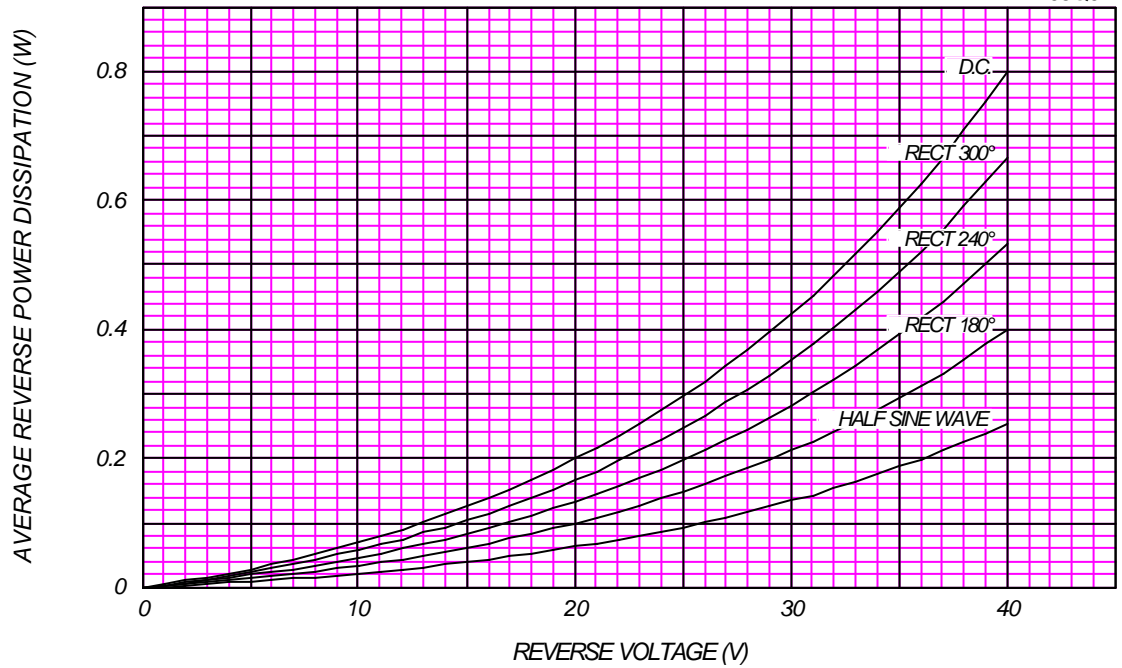
T<sub>j</sub> = 150 °C

EP05Q04



AVERAGE REVERSE POWER DISSIPATION

EP05Q04

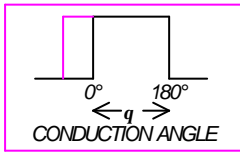
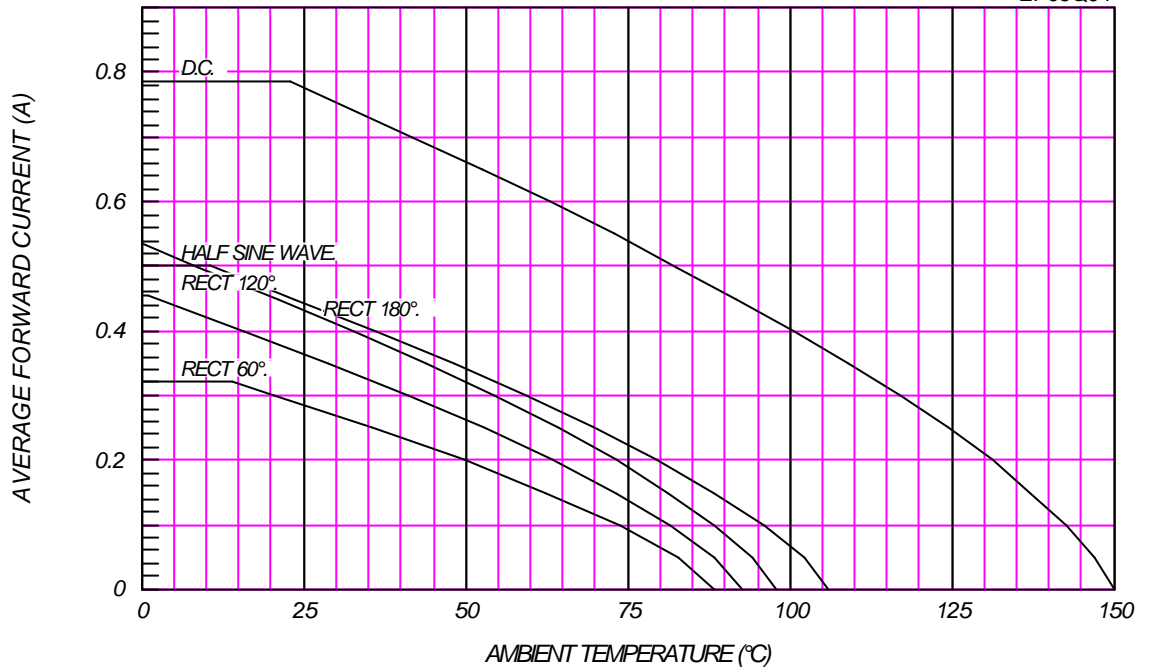




### AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

Glass-Epoxy Substrate Mounted (Soldering Land=1x1mm),  $V_{RM}=40V$

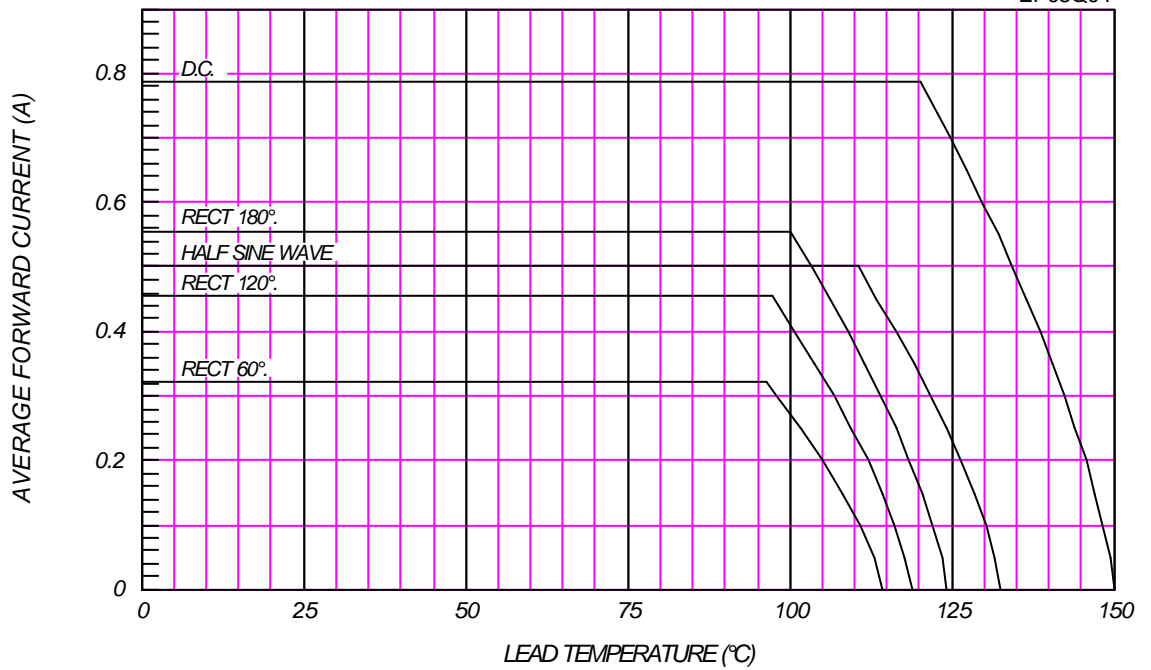
EP05Q04



### AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE

$V_{RM}=40V$

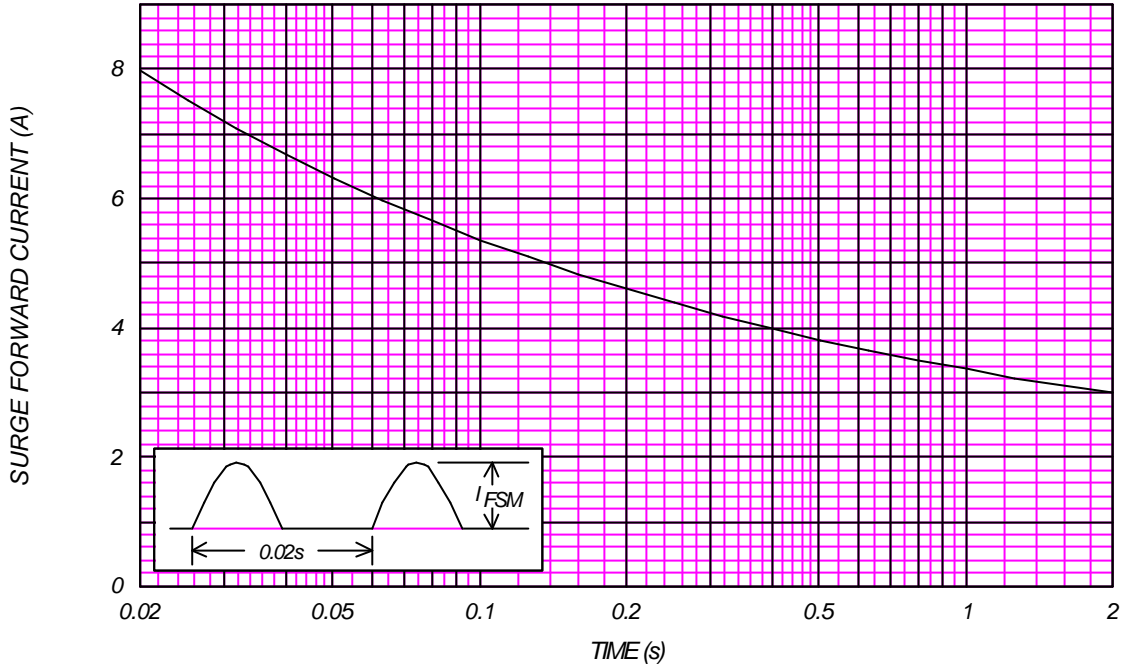
EP05Q04



### SURGE CURRENT RATINGS

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

EP05Q04



### JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

$T_j=25^\circ\text{C}$ ,  $V_m=20\text{mV}_{\text{RMS}}$ ,  $f=100\text{kHz}$ , Typical Value

EP05Q04

