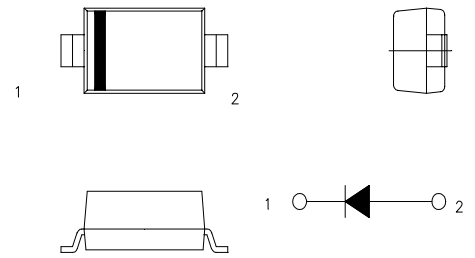


SBD Type : EP05Q04

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

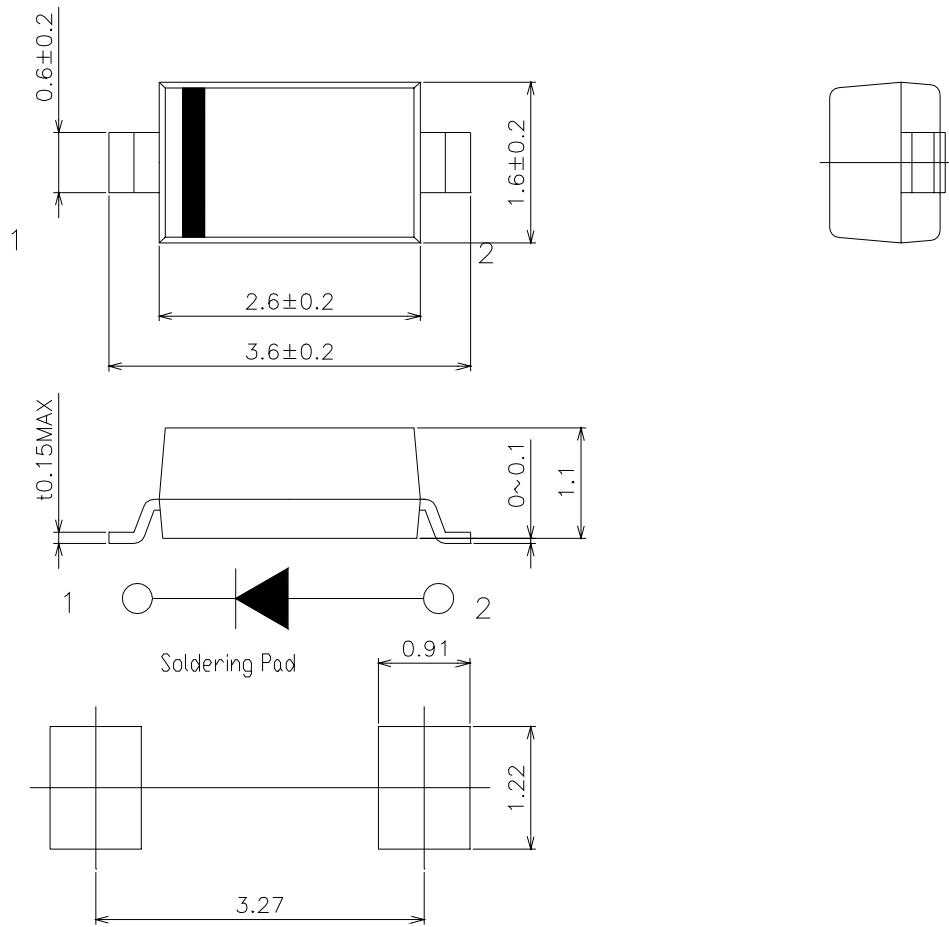
Rating	Symbol	EP05Q04		Unit
Repetitive Peak Reverse Voltage	V_{RRM}	40		V
Average Rectified Output Current	I_O	0.43	$T_a=25^{\circ}\text{C} * 1$ 50Hz Half Sine Wave,	A
		0.50	$T_l=110^{\circ}\text{C}$ Resistive Load	
RMS Forward Current	$I_{F(RMS)}$	0.785		A
Surge Forward Current	I_{FSM}	8	50Hz Half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

Electrical • Thermal Characteristics

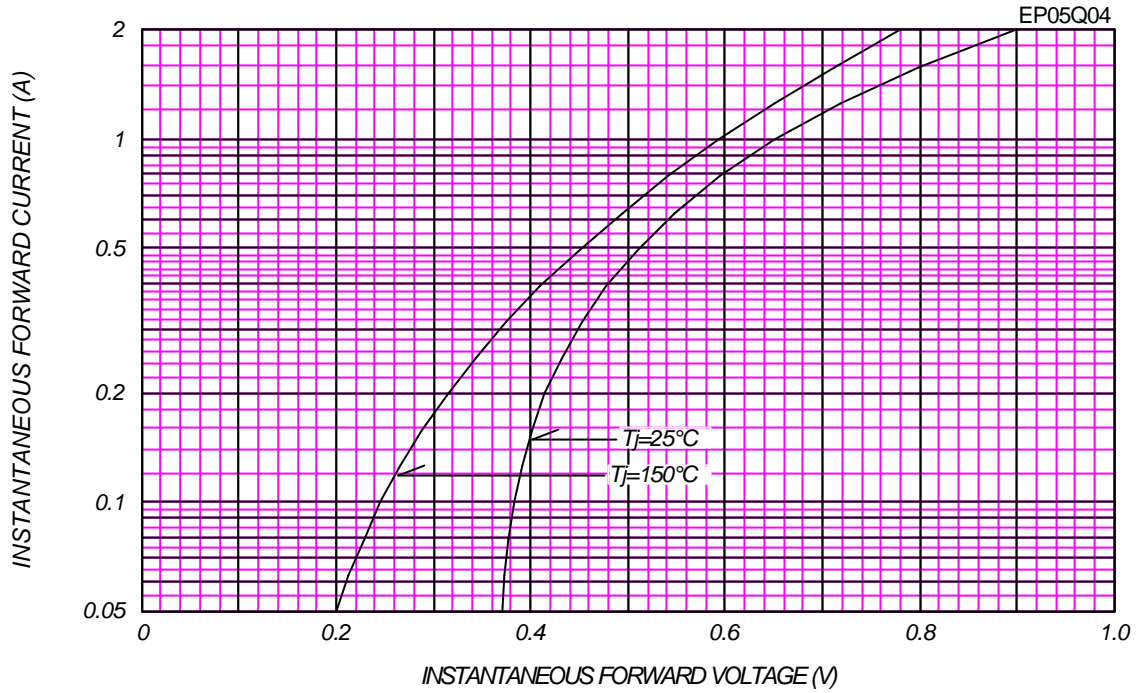
Characteristics	Symbol	Conditions	Min.	Typ.	Max.	Unit
Peak Reverse Current	I_{RM}	$T_j= 25^{\circ}\text{C}, V_{RM}= V_{RRM}$	-	-	100	μA
Peak Forward Voltage	V_{FM}	$T_j= 25^{\circ}\text{C}, I_{FM}=0.5\text{A}$	-	-	0.51	V
Thermal Resistance	$R_{th(j-a)}$	Junction to Ambient *	-	-	300	$^{\circ}\text{C}/\text{W}$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

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

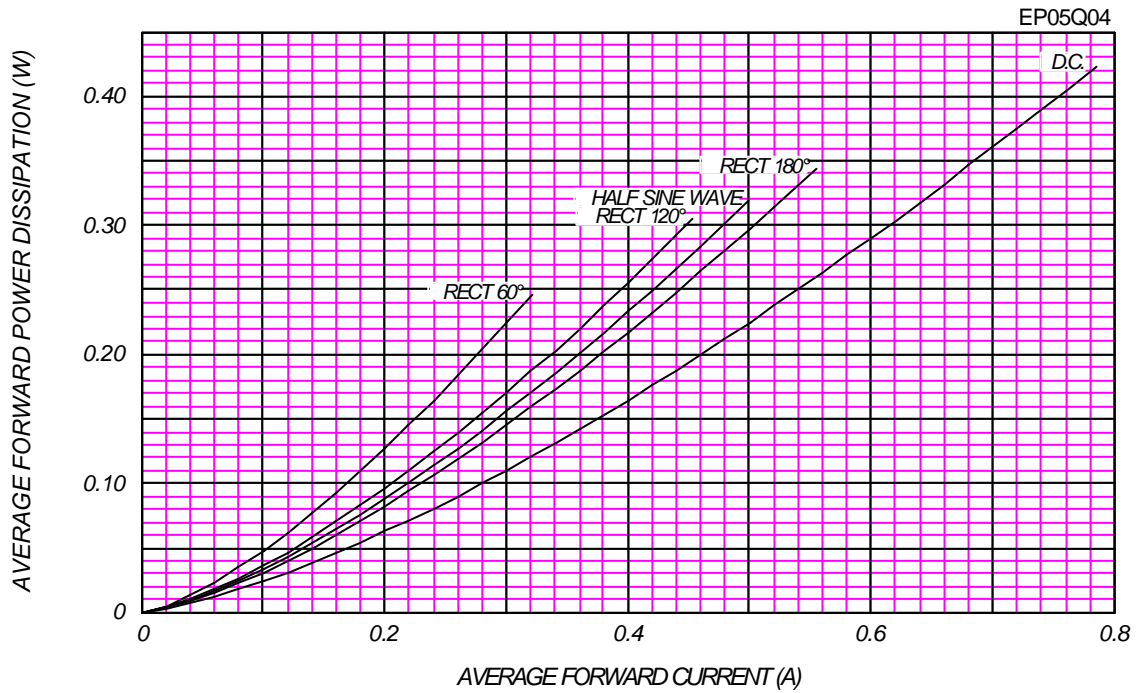
EP05Q04 OUTLINE DRAWING (Dimensions in mm)



FORWARD CURRENT VS. VOLTAGE



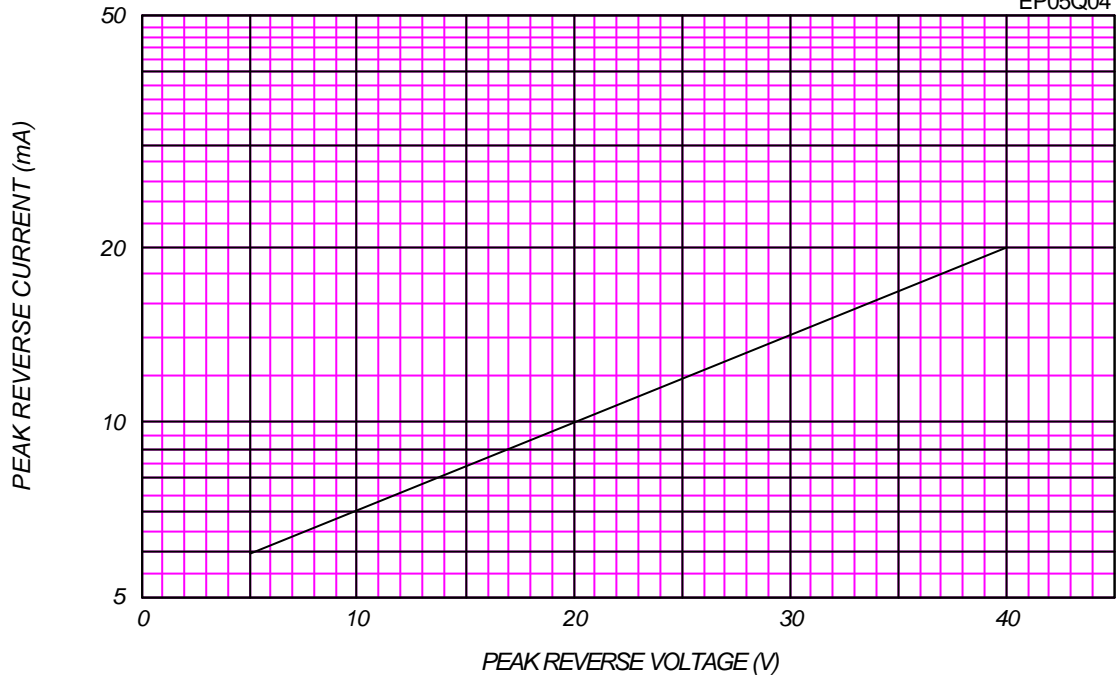
AVERAGE FORWARD POWER DISSIPATION



PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

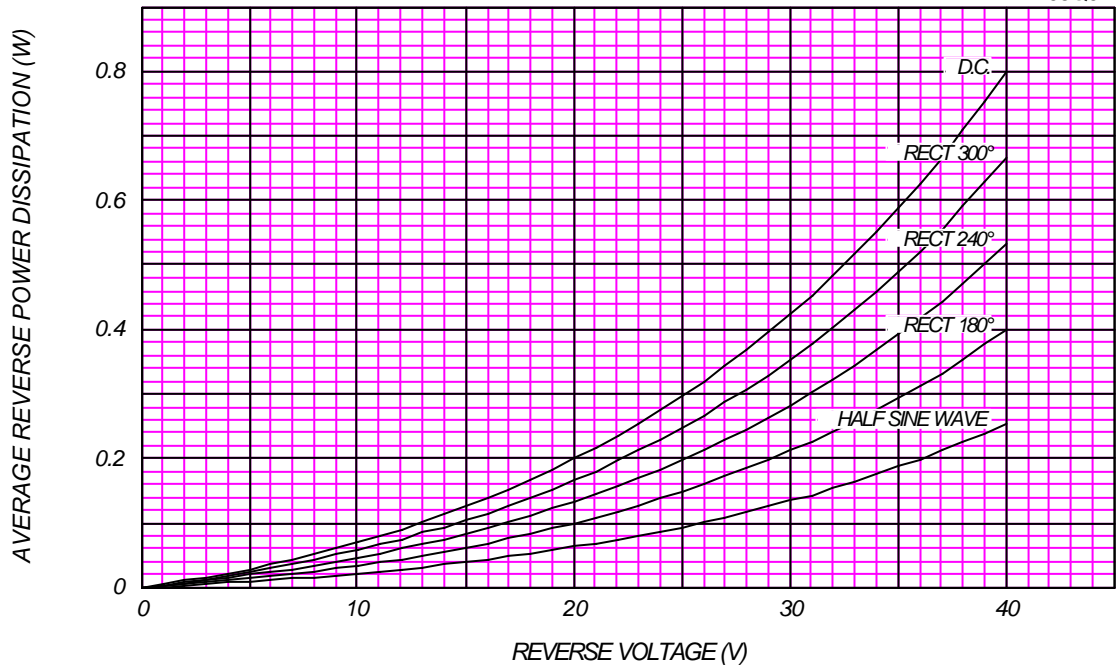
T_j = 150 °C

EP05Q04



AVERAGE REVERSE POWER DISSIPATION

EP05Q04

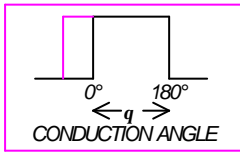
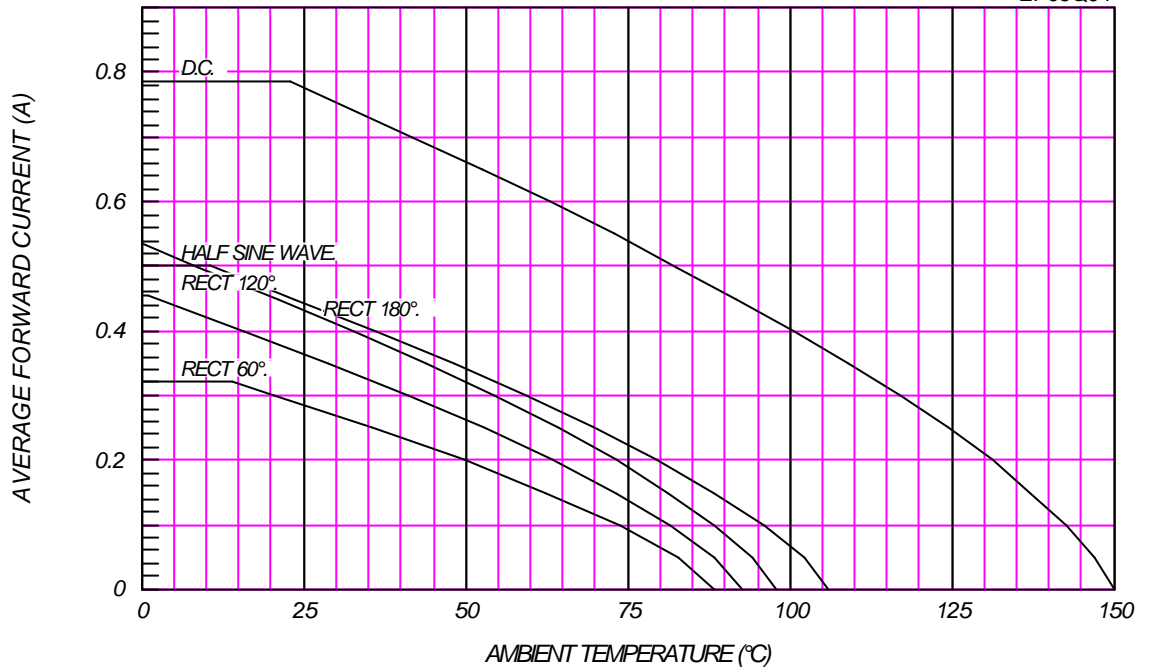




AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

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

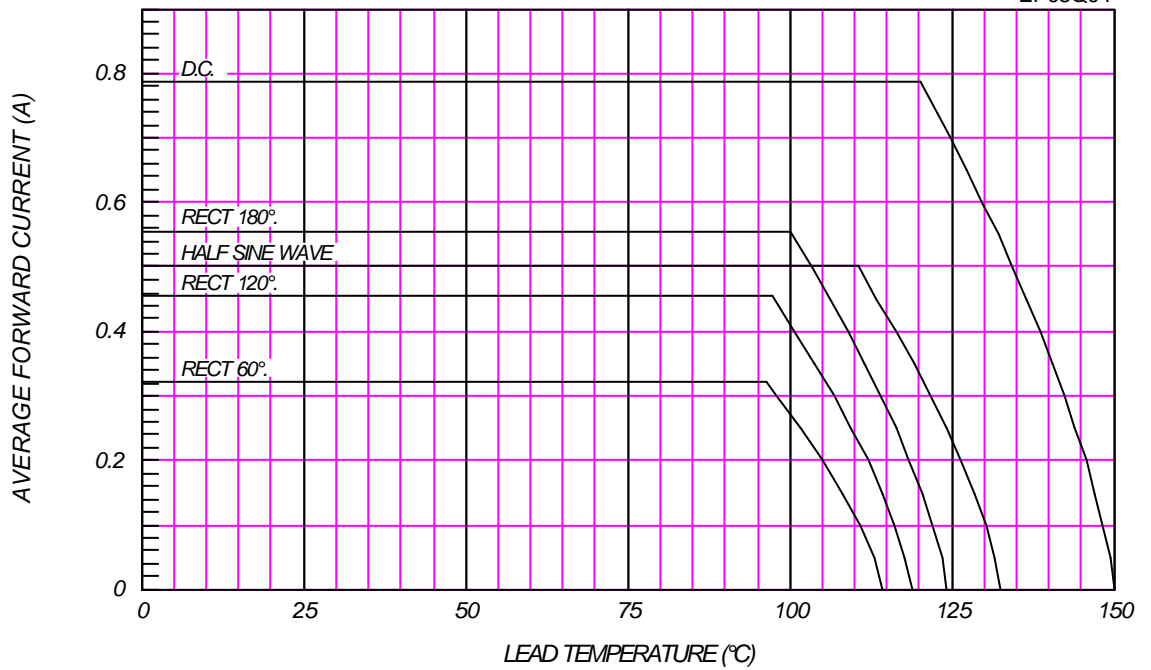
EP05Q04



AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE

$V_{RM}=40V$

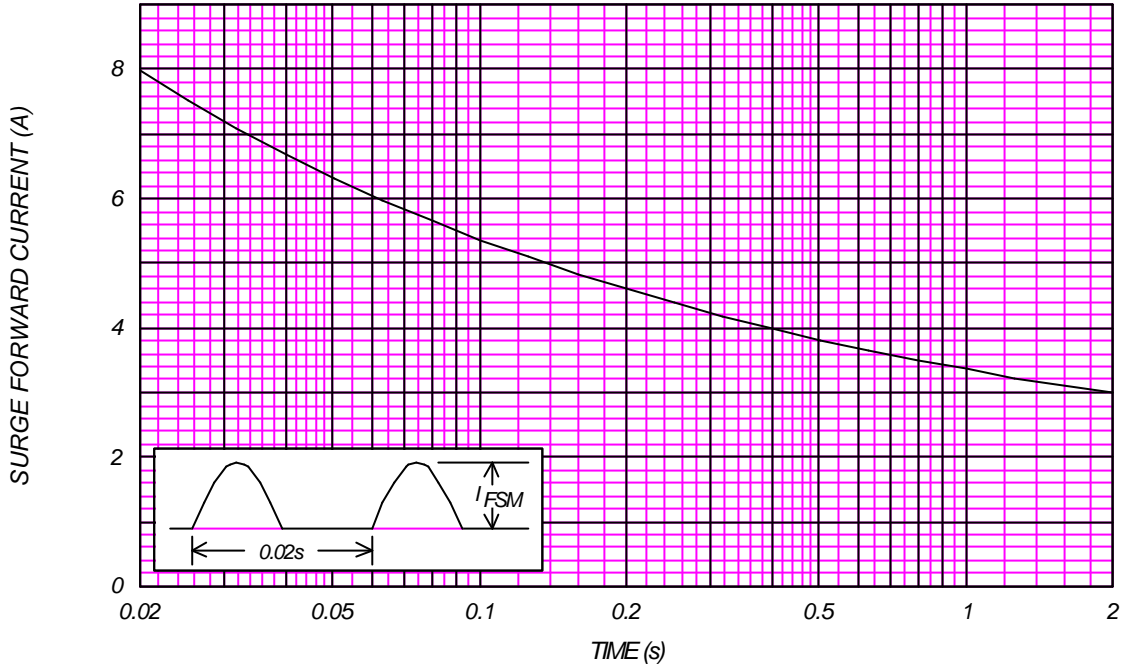
EP05Q04



SURGE CURRENT RATINGS

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

EP05Q04



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

T_j=25° C, V_m=20mV_{RMS}, f=100kHz, Typical Value

EP05Q04

