

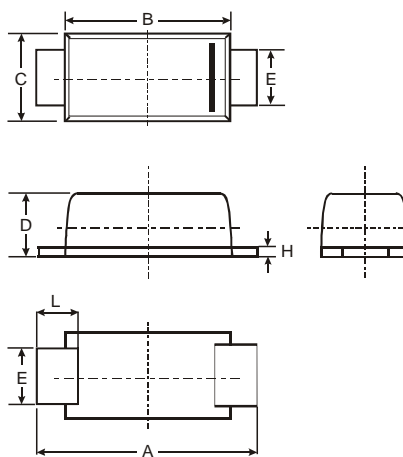
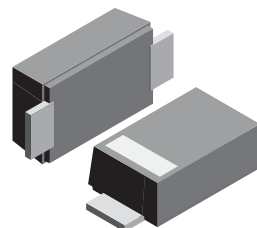
VOLTAGE RANGE: 40V
CURRENT: 0.5 A

Features

- 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

Mechanical Data

- Case: SOD-123FL
plastic body over passivated junction
- Terminals : Plated axial leads,
solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Mounting Position : Any
- Weight: 0.0007 ounce, 0.02 grams



SOD-123FL			
Dim	Min	Max	Typ
A	3.58	3.72	3.65
B	2.72	2.78	2.75
C	1.77	1.83	1.80
D	1.02	1.08	1.05
E	0.097	1.03	1.00
H	0.13	0.17	0.15
L	0.53	0.57	0.55
All Dimensions in mm			

Maximum Ratings @ T_A = 25°C unless otherwise specified

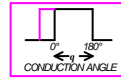
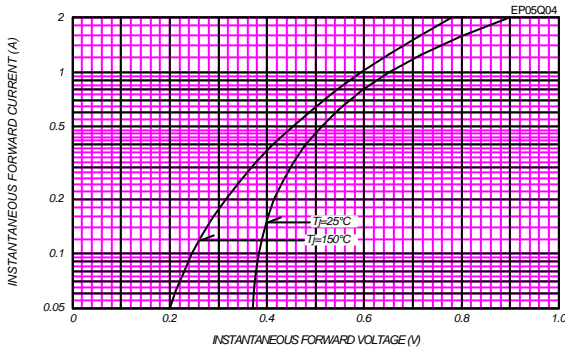
Characteristic	Symbol	Limits	Unit
Repetitive Peak Reverse Voltage	V _{RRM}	40	V
Average Rectified Output Current 50Hz Half Sine Wave Resistive Load	I _O	0.43 0.50	A
R.M.S. Forward Current	I _{F(RMS)}	0.785	A
Surge Forward Current 50Hz Half Sine Wave, 1 cycle, Non-repetitive	I _{FSM}	8	A
Operating Junction Temperature Range	T _{jw}	-40 ~ +150	°C
Storage Temperature Range	T _{stg}	-40 ~ +150	°C

Electrical Characteristics @ T_A = 25°C unless otherwise specified

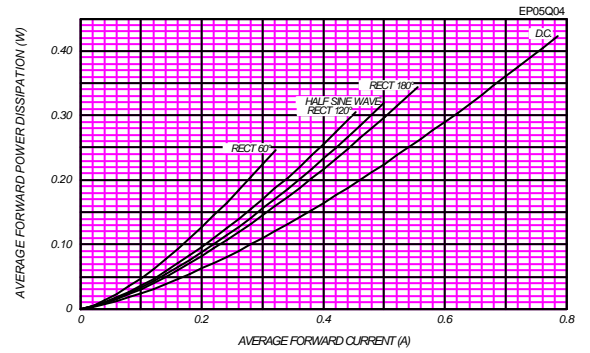
Characteristic	Symbol	Min.	Typ.	Max.	Unit
Peak Reverse Current T _j =25°C, V _{RM} =V _{RRM}	I _{RM}	—	—	100	μA
Peak Forward Voltage T _j =25°C, I _{FM} =0.5A	V _{FM}	—	—	0.51	V
Thermal Resistance	Junction to Lead	—	—	70	°C/W
	Junction to Ambient *	—	—	300	°C/W

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

FORWARD CURRENT VS. VOLTAGE

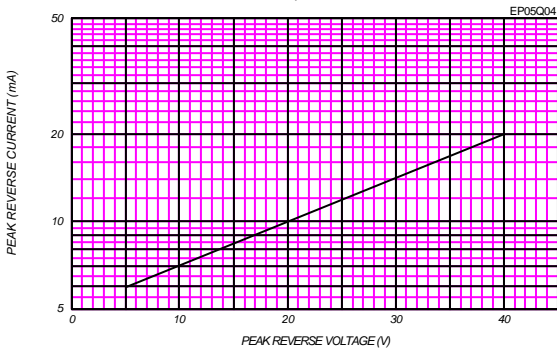


AVERAGE FORWARD POWER DISSIPATION

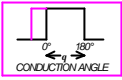
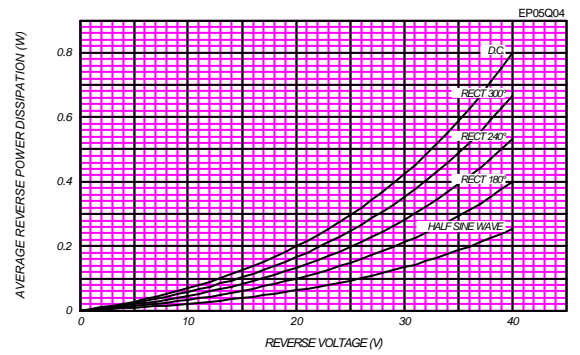


PEAK REVERSE CURRENT VS. PEAK REVERSE VOLTAGE

$T_j = 150^\circ\text{C}$

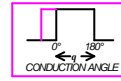
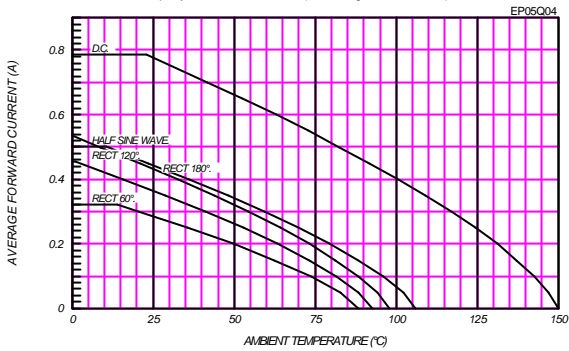


AVERAGE REVERSE POWER DISSIPATION



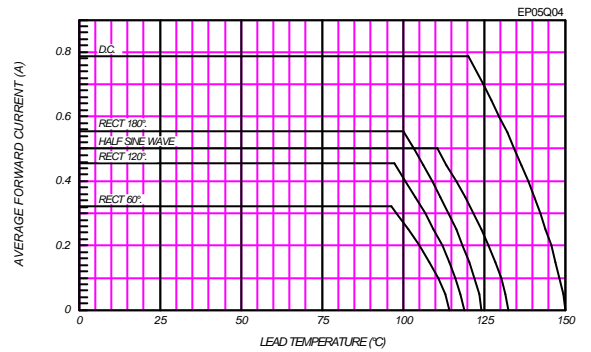
AVERAGE FORWARD CURRENT VS. AMBIENT TEMPERATURE

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



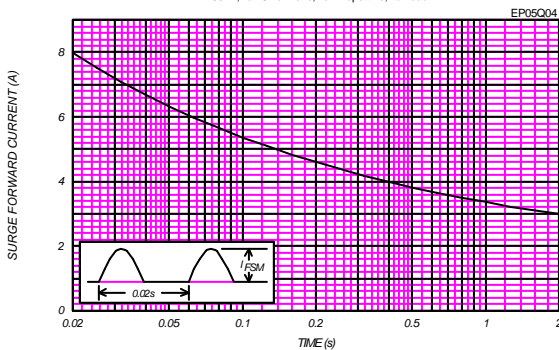
AVERAGE FORWARD CURRENT VS. LEAD TEMPERATURE

$V_{RM}=40\text{V}$



SURGE CURRENT RATINGS

$f=50\text{Hz}$, Half Sine Wave, Non-Repetitive, No Load



JUNCTION CAPACITANCE VS. REVERSE VOLTAGE

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

