

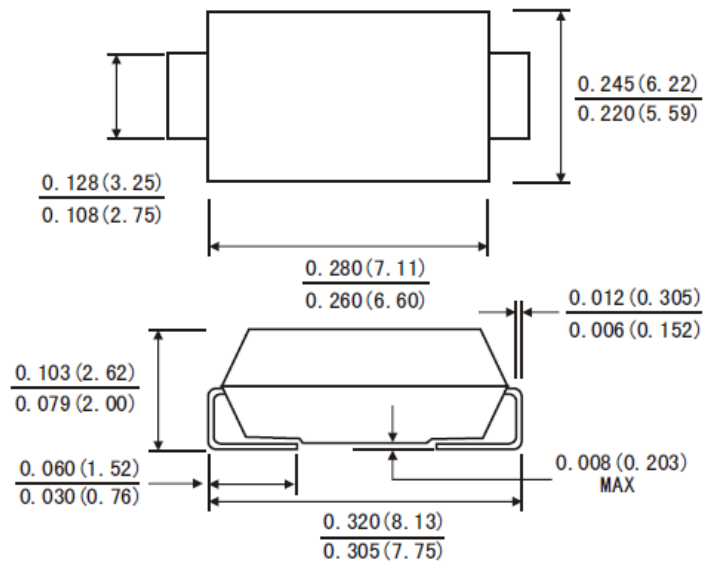
### FEATURES

- Ideal for automated placement
- Ultrafast reverse recovery time for high efficiency
- Low profile package
- High forward surge capability
- High temperature soldering :  
260°C/10 seconds at terminals
- Component in accordance to RoHS 2002/95/1  
and WEEE 2002/96/EC

### MECHANICAL DATA

- Case: JEDEC DO-214AB molded plastic body over passivated chip
- Terminals: Solder plated, solderable per J-STD-002B and JESD22-B102D
- Polarity: Laser band denotes cathode end
- Weight: 0.0032 ounce, 0.093 gram

### SMC/DO-214AB



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified. Single phase, half wave, 60HZ, resistive or inductive load. For capacitive load, derate current by 20%.

Type Number	Symbols	ES3A	ES3B	ES3D	ES3G	ES3J	ES3K	Units
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	50	100	200	400	600	800	Volts
Maximum RMS Voltage	$V_{RMS}$	35	70	140	280	420	480	Volts
Maximum DC Blocking Voltage	$V_{DC}$	50	100	200	400	600	800	Volts
Average Forward Rectified Current @ $T_L = 110^\circ\text{C}$	$I_{(AV)}$	3.0						Amp
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	100						Amp
Maximum Forward Voltage at 3.0A DC	$V_F$	0.95		1.25		1.7	2.2	Volts
Maximum Reverse Current @ Rated $T_j = 25^\circ\text{C}$ Reverse Voltage @ $T_j = 100^\circ\text{C}$	$I_R$	1.0 150						$\mu\text{Amp}$
Typical Thermal Resistance $T_j = 25^\circ\text{C}$ (Note3)	$R_{\theta JA}$	16						$^\circ\text{C}/\text{W}$
Typical Junction capacitance (Note2)	$C_j$	18						pF
Maximum Reverse Recovery Time (Note1)	TRR	35						nS
Operating Temperature Range	$T_j$	-55 to +150						$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150						$^\circ\text{C}$

### NOTES:

- 1.Reverse Recovery Test conditions:  $I_F=0.5\text{A}, I_R=1.0\text{A}, I_{RR}=0.25\text{A}$ .
- 2.Measured at 1MHZ and applied reverse voltage of 4.0 Volts.
- 3.Thermal Resistance From Junction To Ambient P.C.B.Mounted On 0.2x0.2"(5.0x5.0mm)Copper Pad Areas.

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

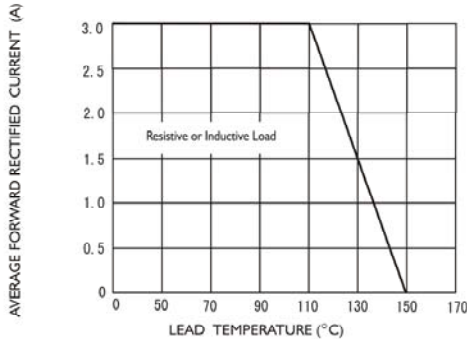


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

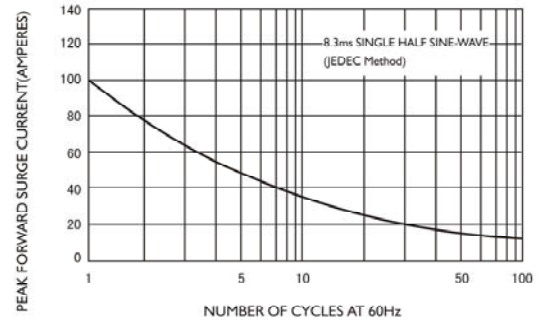


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

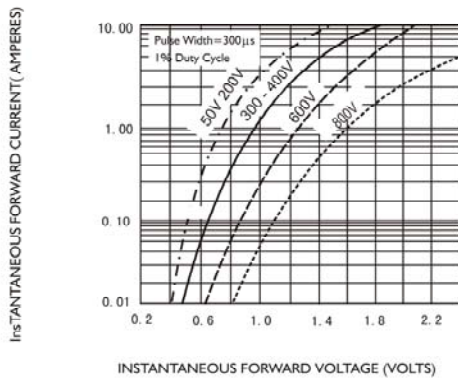


FIG.4-TYPICAL REVERSE CHARACTERISTICS

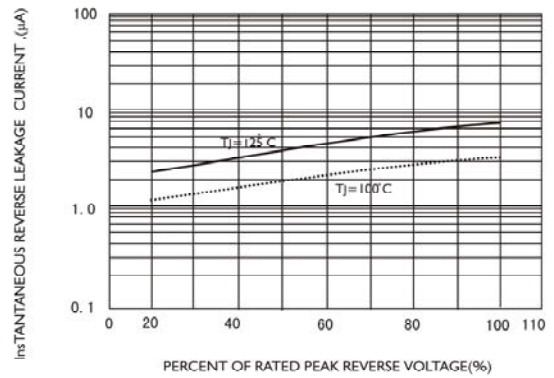


FIG.5-TYPICAL JUNCTION CAPACITANCE

