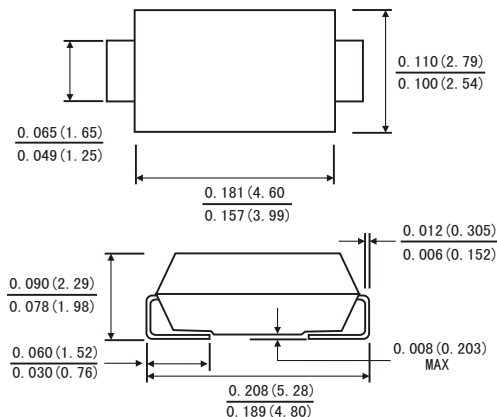


### FEATURES

- Glass passivated cavity-free junction
- Ideal for surface mount automotive applications
- Ultrafast recovery time for high efficiency
- Built-in strain relief
- Easy pick and place
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Lead (Pb)-free component
- Component in accordance to RoHS 2002/95/EC and WEEE 2002/96/EC
- High temperature soldering guaranteed:260°C/10 seconds at terminals



### SMA(DO-214AC)



Dimensions in inches and (millimeters)

### MECHANICAL DATA

- Case: JEDEC SMA(DO-214AC) molded plastic body
- TerMINals: Solder Plated, solderable per MIL-STD-750,method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.002ounce, 0.064 gram

### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

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

		Symbols	ES1						Units	
			A	B	C	D	E	G		J
Maximum Repetitive Peak Reverse Voltage		V <sub>RRM</sub>	50	100	150	200	300	400	600	Volts
Maximum RMS Voltage		V <sub>RMS</sub>	35	70	105	140	210	280	420	Volts
Maximum DC Blocking Voltage		V <sub>DC</sub>	50	100	150	200	300	400	600	Volts
Maximum Average Forward Rectified Current at Ta=120°C		I <sub>(AV)</sub>	1.0						Amps	
Peak Forward Surge Current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I <sub>FSM</sub>	30						Amps	
Maximum Instantaneous Forward Voltage at 1.0 A		V <sub>F</sub>	0.95			1.25		1.7		Volts
Maximum DC Reverse Current At Rated DC Blocking Voltage	T <sub>A</sub> =25°C	I <sub>R</sub>	5						μA	
Maximum Reverse Recovery Time(Note1)		T <sub>rr</sub>	35						ns	
Typical Junction Capacitance(Note2)		C <sub>J</sub>	10						pF	
Typical Thermal Resistance (Note3)		R <sub>θ JA</sub>	34						°C/W	
Operating Junction and Storage Temperature Range		T <sub>J</sub> , T <sub>STG</sub>	-55 to+150						°C	

Note: 1. Test conditions: I<sub>F</sub>=0.5A,I<sub>R</sub>=1.0A,IRR=0.25A.

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.

# RATINGS AND CHARACTERISTIC CURVES ES1A THRU ES1J

FIG.1- FORWARD CURRENT DERATING CURVE

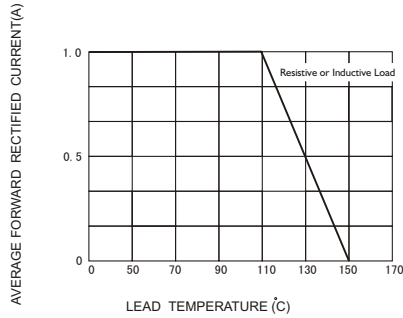


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

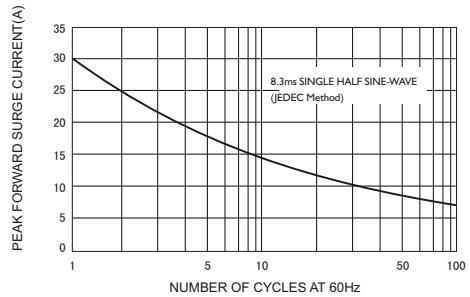


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

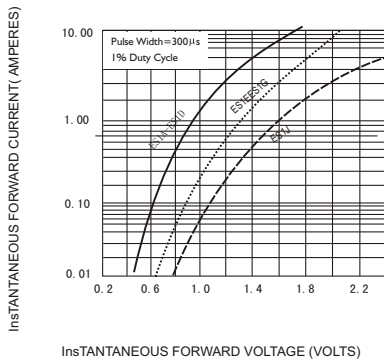


FIG.4-TYPICAL REVERSE CHARACTERISTICS

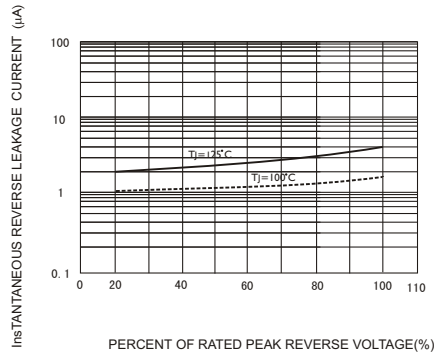


FIG.5-TYPICAL JUNCTION CAPACITANCE

