



Features

- Ideal for surface mount applications
- Easy pick and place
- Built-in strain relief
- Super fast recovery time for high speed switching



SMC

Mechanical Data

- Case: Molded plastic
- Epoxy: UL 94V-0 rate flame retardant
- Metallurgically bonded construction
- Polarity: Color band denotes cathode end
- Mounting position: Any
- Weight: 0.21 grams



Package Marking and Ordering Information

Product ID	Pack	Marking	Qty(PCS)
ES10A-ES10J	SMC	ES10x	3000

x: A-J

Maximum Ratings (Ta=25°C unless otherwise noted)

ambient temperature unless otherwise specified. Single phase, half wave, 60 Hz, resistive or inductive load. For capacitive load, derate current by 20%

Type Number	ES10A	ES10B	ES10C	ES10D	ES10E	ES10G	ES10J	Units
Maximum Recurrent Peak Reverse Voltage	50	100	150	200	300	400	600	V
Maximum RMS Voltage	35	70	105	140	210	280	600	V
Maximum DC Blocking Voltage	50	100	150	200	300	400	600	V
Maximum Average Forward Rectified Current at T _L =100°C	10.0							A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	150							A
Maximum Instantaneous Forward Voltage at 10.0A	0.95				1.25		1.75	V
Maximum DC Reverse Current Ta=25°C	5							μA
at Rated DC Blocking Voltage Ta=100°C	500							μA
Maximum Reverse Recovery Time (Note 1)	35							nS
Typical Junction Capacitance (Note 2)	60				40			pF
Operating and Storage Temperature Range T _J , T _{STG}	-65 — +150							°C

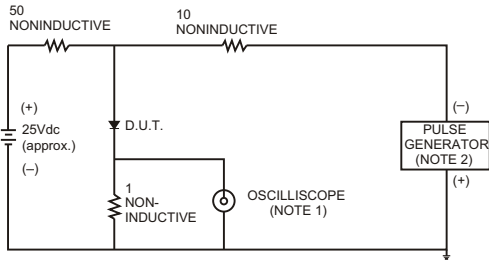
NOTES:

1. Reverse Recovery Time test condition: IF=0.5A, IR=1.0A, IRR=0.25A
2. Measured at 1MHz and applied reverse voltage of 4.0V D.C.



Typical Characteristics

FIG.1- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTIC



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm.22pF.

2. Rise Time= 10ns max., Source Impedance= 50 ohms.

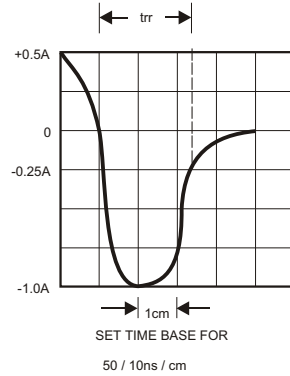


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

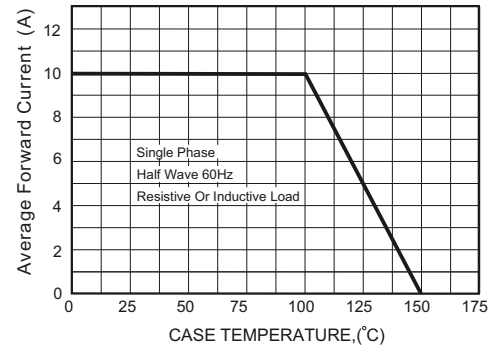


FIG.3-TYPICAL FORWARD CHARACTERISTICS

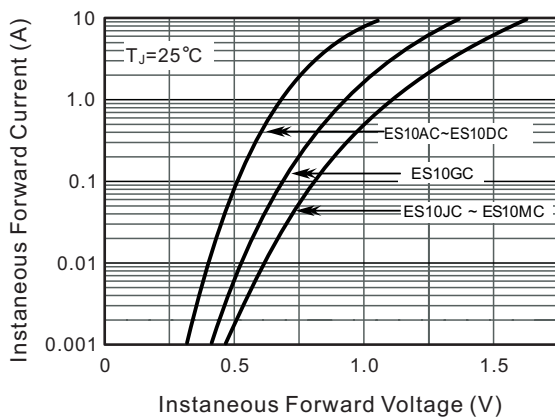


FIG.4-TYPICAL REVERSE CHARACTERISTICS

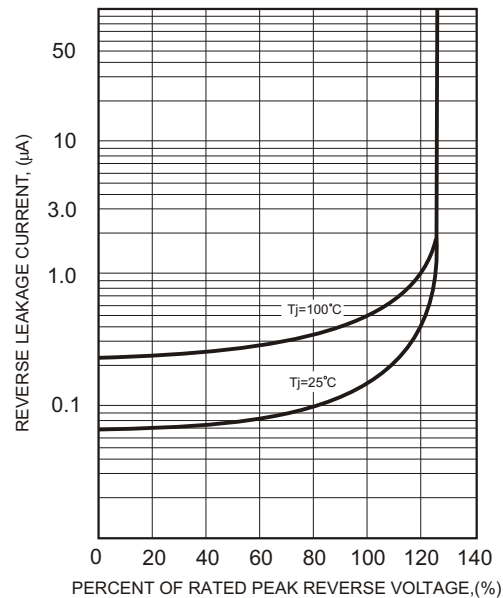


FIG.5-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

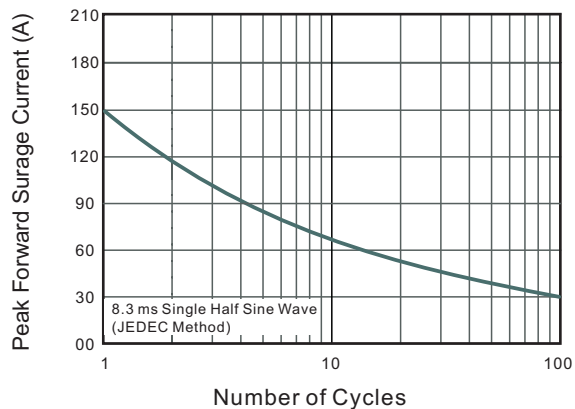
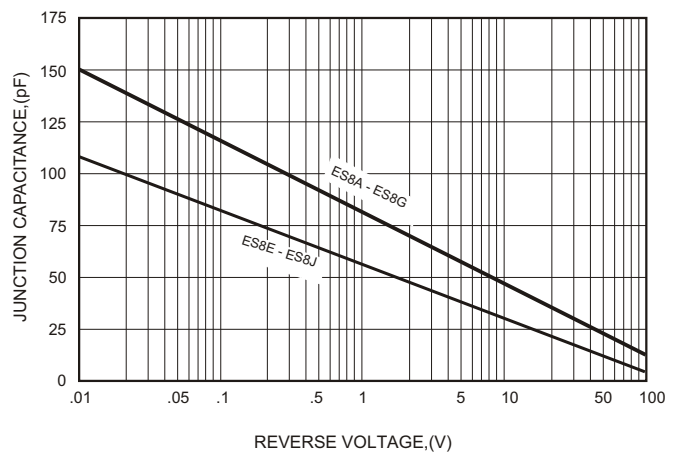


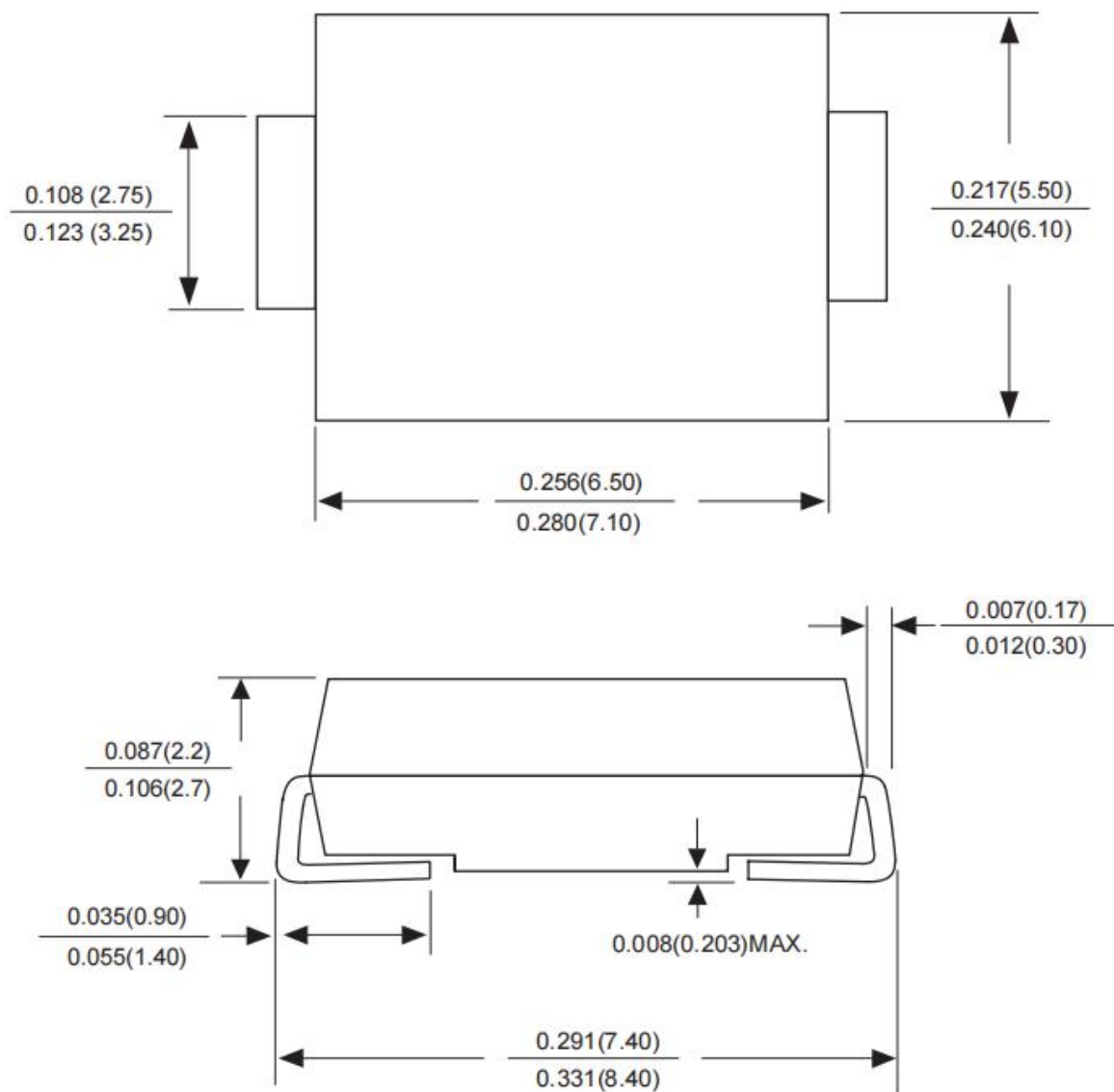
FIG.6-TYPICAL JUNCTION CAPACITANCE





Package Outline Dimensions

SMC



Dimensions in inches and (millimeters)



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