



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)
ES3A-ES3G	SMC	ES3x	3000

x: A-G

Maxmim Ratings (Ta=25 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	ES3A	ES3B	ES3C	ES3D	ES3E	ES3G	Units
Maximum Recurrent Peak Reverse Voltage	50	100	150	200	300	400	V
Maximum RMS Voltage	35	70	105	140	210	280	V
Maximum DC Blocking Voltage	50	100	150	200	300	400	V
Maximum Average Forward Rectified Current at T _L =100°C	3.0						A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	100						A
Maximum Instantaneous Forward Voltage at 3.0A	0.95				1.25		V
Maximum DC Reverse Current Ta=25°C	10						μA
at Rated DC Blocking Voltage Ta=100°C	500						μA
Maximum Reverse Recovery Time (Note 1)	35						nS
Typical Junction Capacitance (Note 2)	45						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-TYPICAL FORWARD CHARACTERISTICS

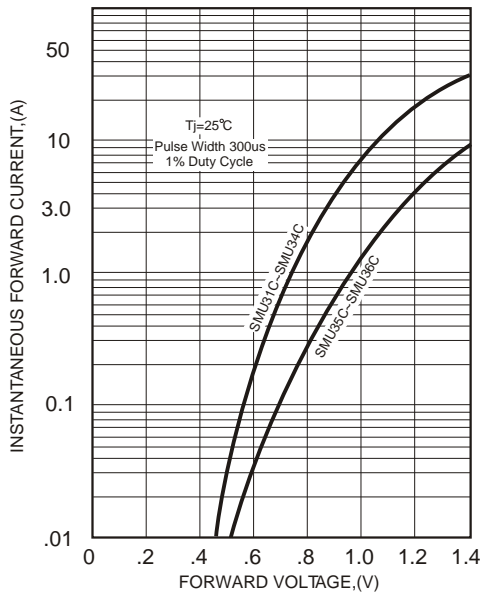


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

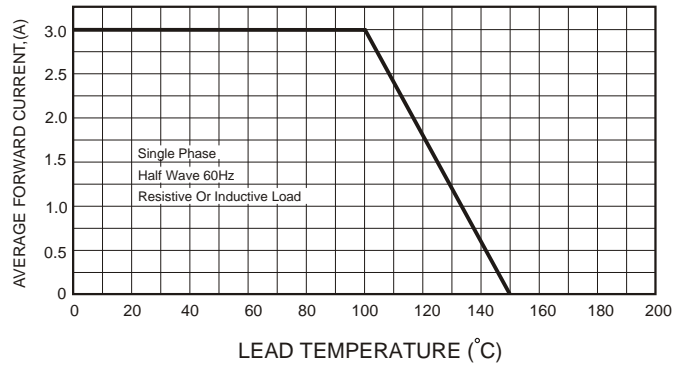
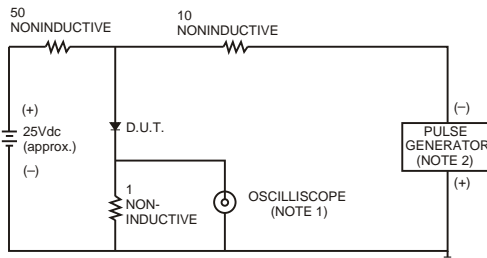


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



NOTES: 1. Rise Time= 7ns max., Input Impedance= 1 megohm, 22pF.
2. Rise Time= 10ns max., Source Impedance= 50 ohms.

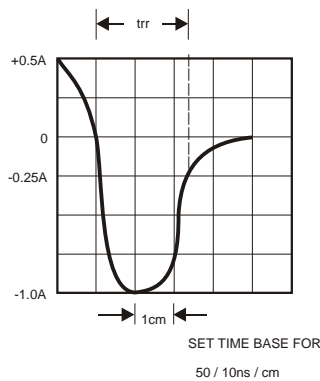


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

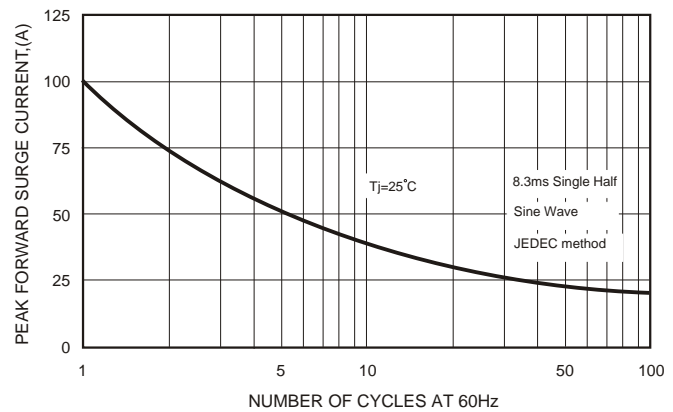
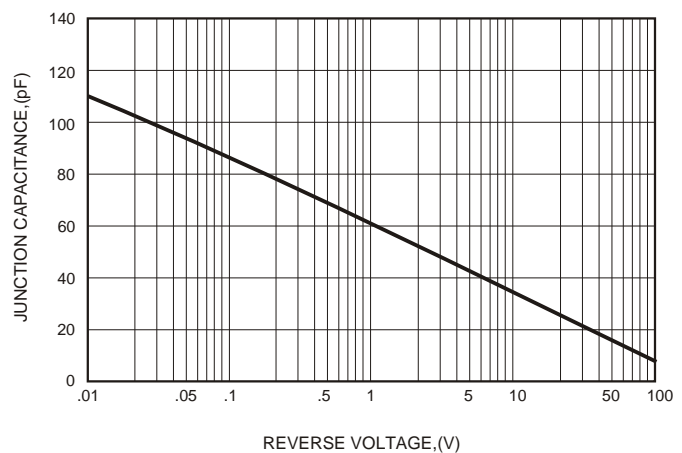
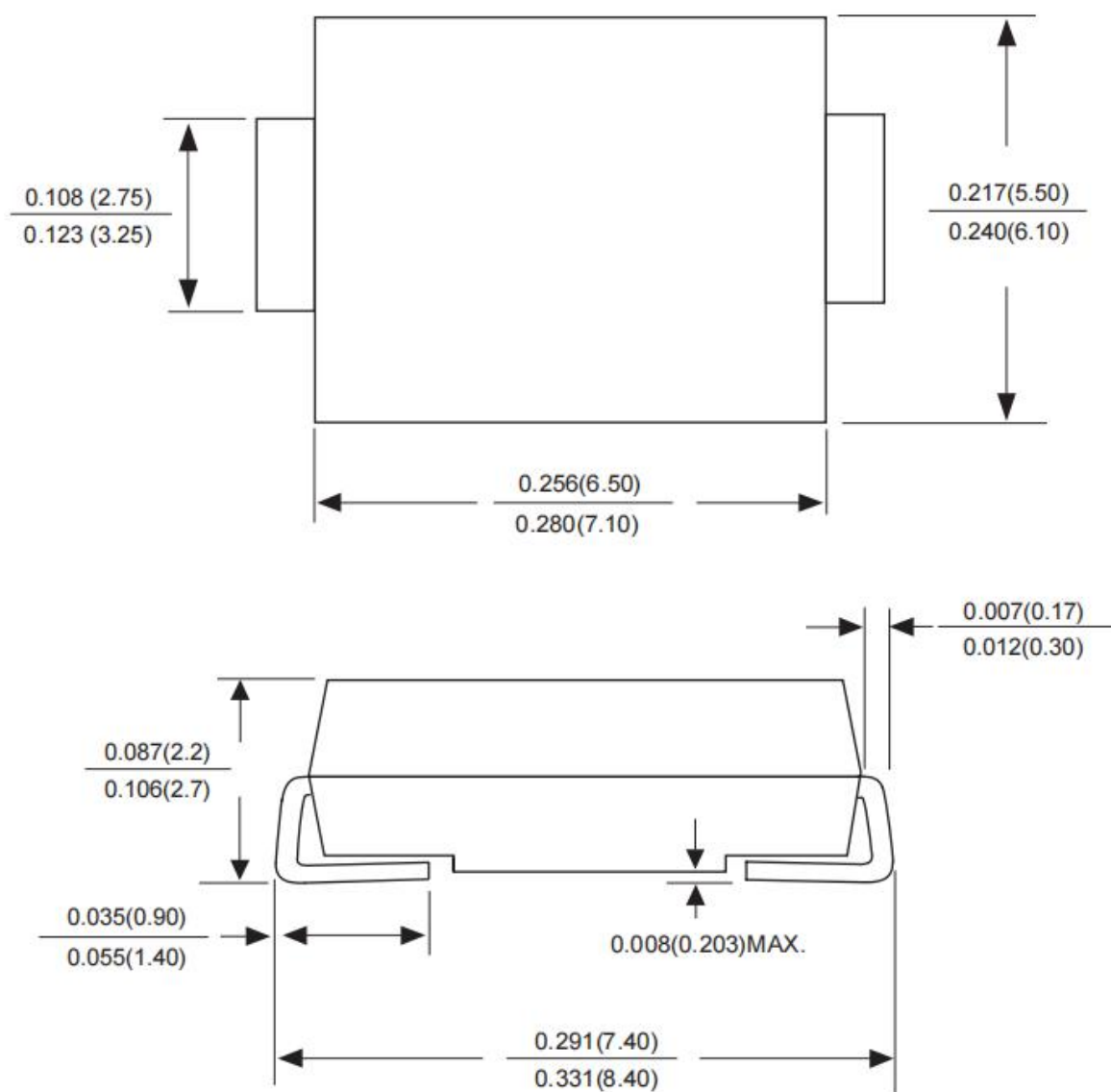


FIG.5-TYPICAL JUNCTION CAPACITANCE





Package Outline Dimensions SMC



Dimensions in inches and (millimeters)



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