



## 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 <sub>L</sub> =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 at Rated DC Blocking Voltage	10 500						μA
Maximum Reverse Recovery Time (Note 1)	35						nS
Typical Junction Capacitance (Note 2)	45						pF
Operating and Storage Temperature Range T <sub>J</sub> , T <sub>stg</sub>	-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

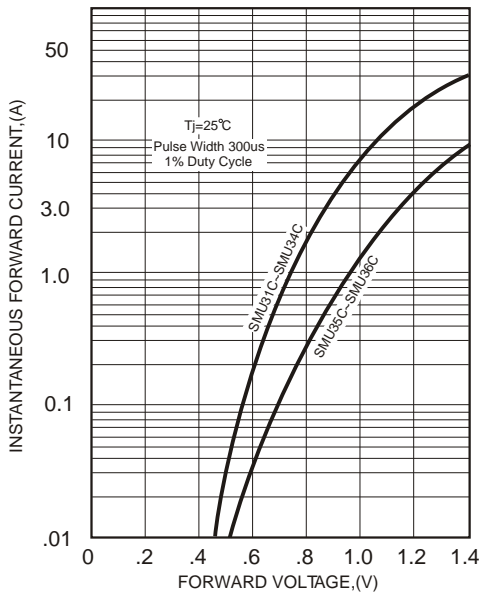


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

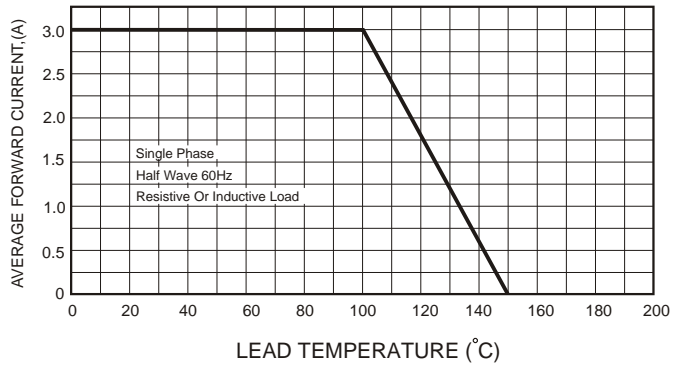


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

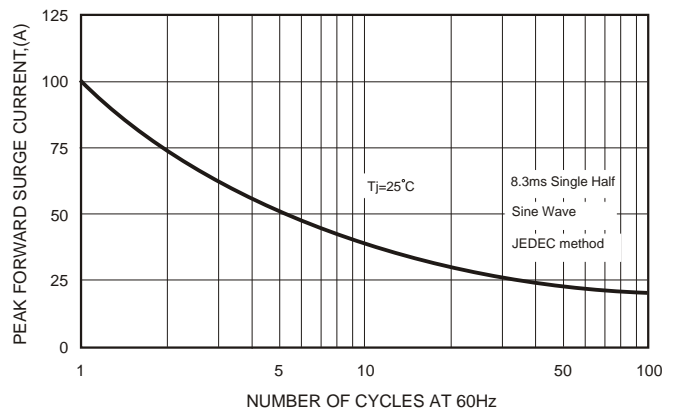
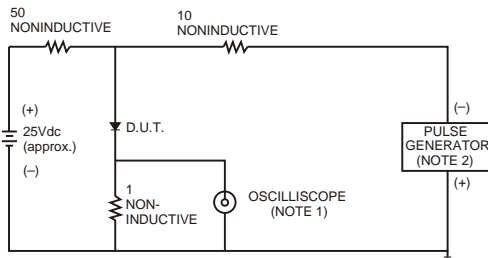


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

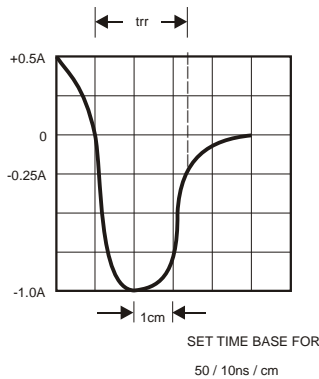
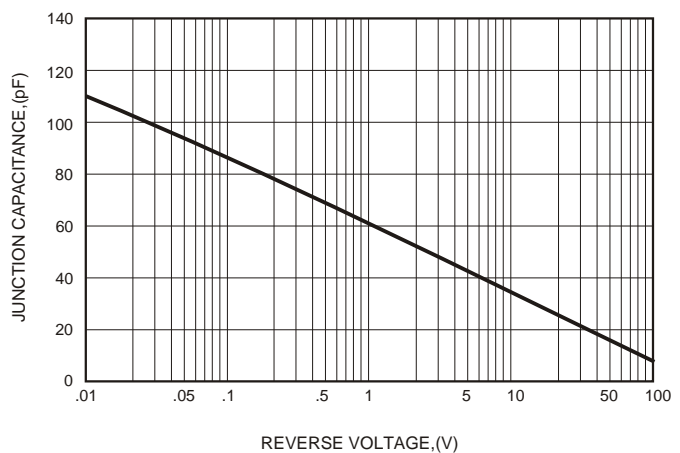
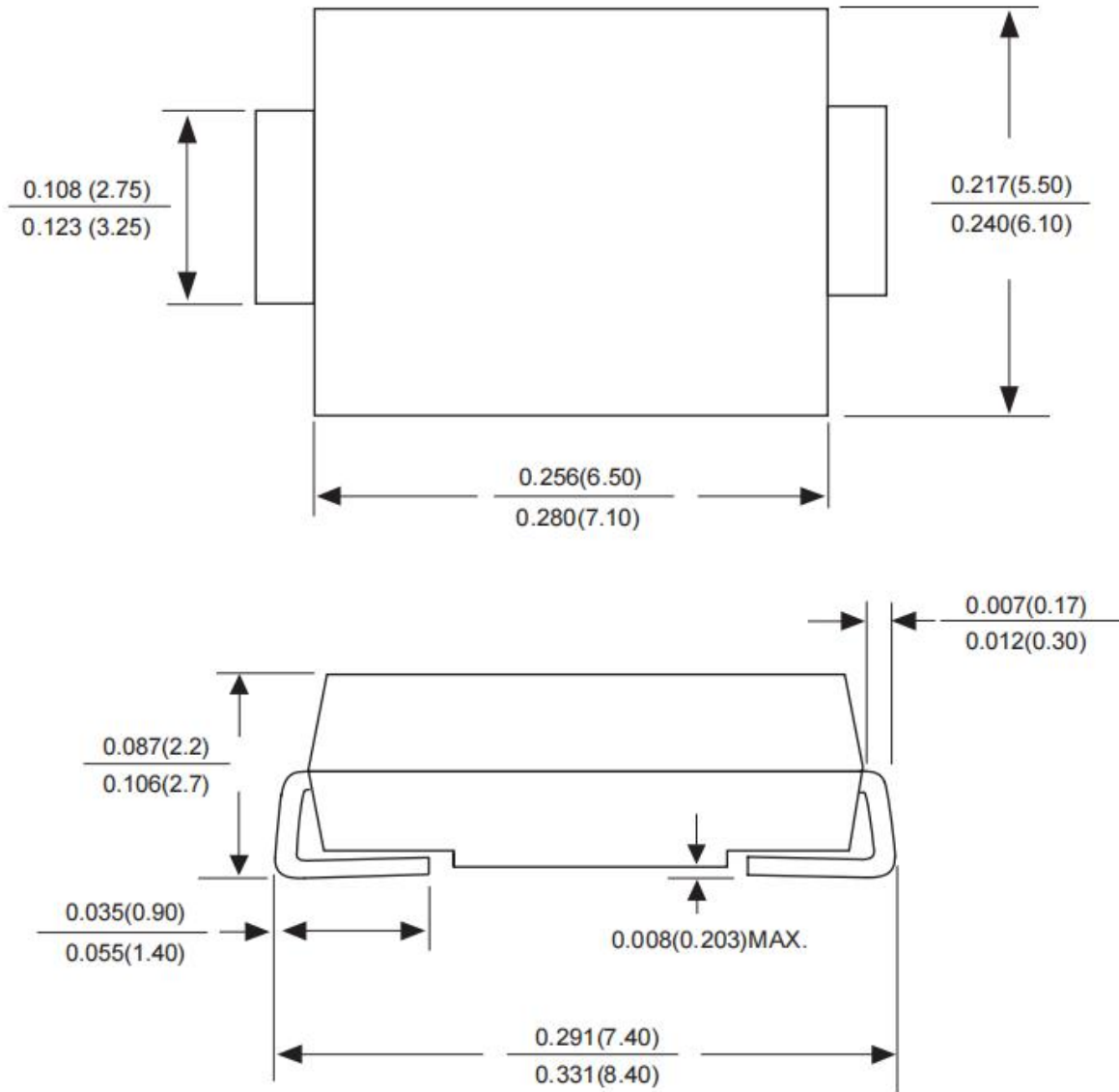


FIG.5-TYPICAL JUNCTION CAPACITANCE





**Package Outline Dimensions**  
**SMC**



Dimensions in inches and (millimeters)



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