

# MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

## ES3A THRU ES3G

Product specification



## Features

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

## 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

## Reference News

PACKAGE OUTLINE	Pin Configuration
	
<b>SMC</b>	

## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 25°C ambient temperature unless otherwise specified.

Single phase half wave, 60Hz, resistive or inductive load.

For capacitive load, derate current by 20%

P/N(MARK)	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 Ta=25°C	10						μA
Maximum DC Reverse Current 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 <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.

RATING AND CHARACTERISTIC CURVES (ES3A THRU ES3G)

FIG.1-TYPICAL FORWARD CHARACTERISTICS

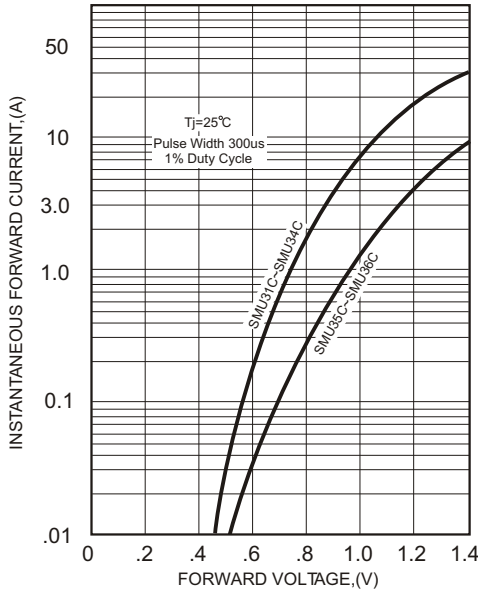


FIG.2-TYPICAL FORWARD CURRENT DERATING CURVE

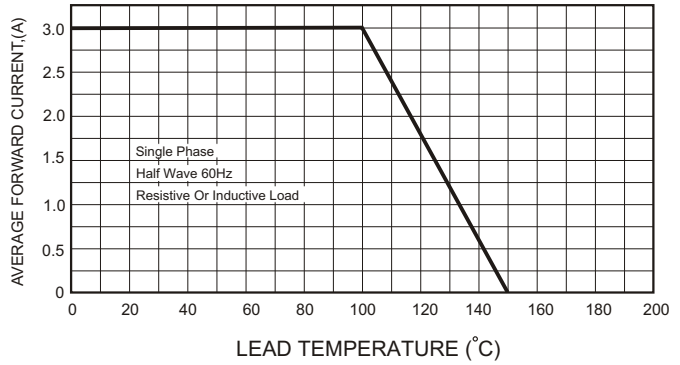


FIG.4-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

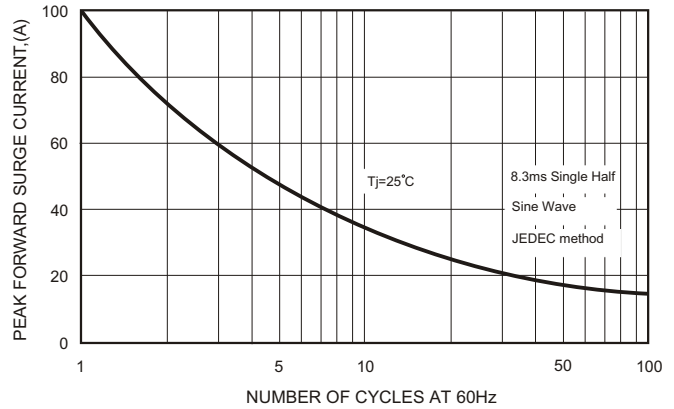
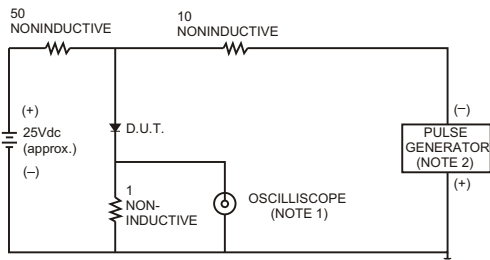


FIG.3- TEST CIRCUIT DIAGRAM AND REVERSE RECOVERY TIME CHARACTERISTICS



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

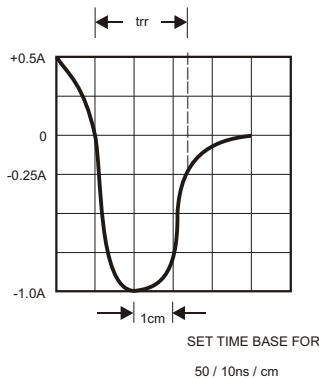
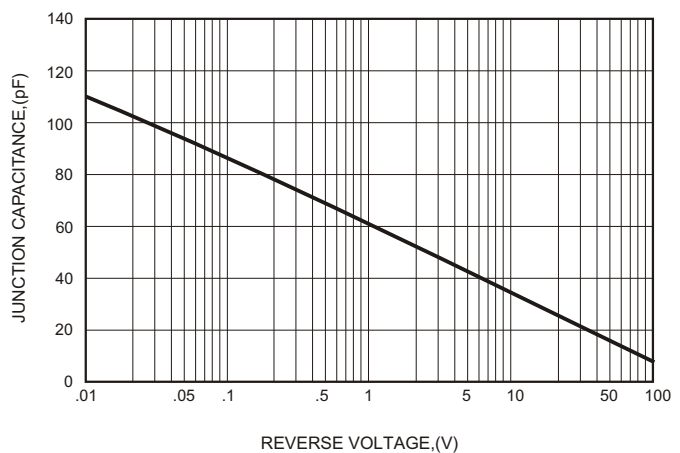
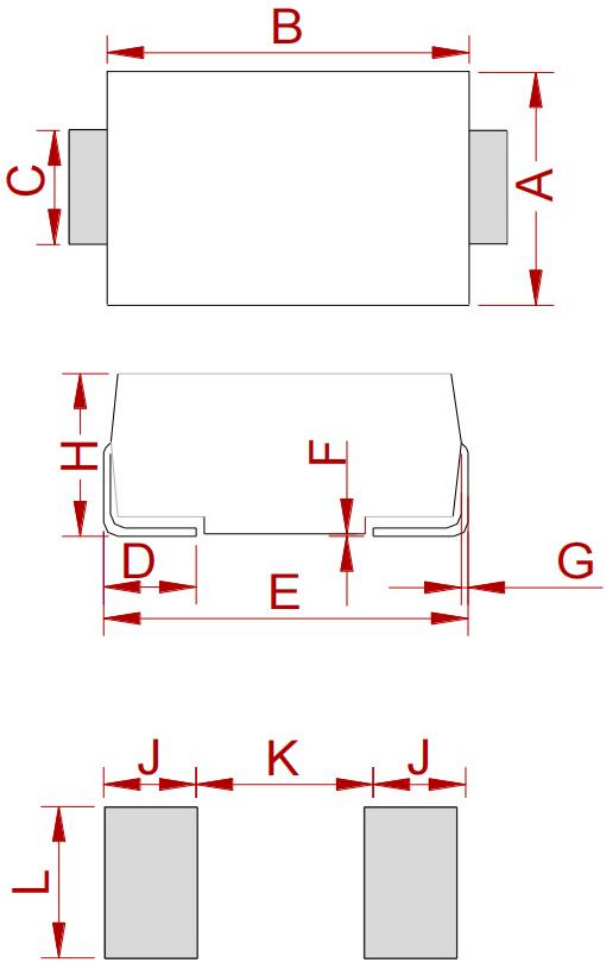


FIG.5-TYPICAL JUNCTION CAPACITANCE



**PACKAGE MECHANICAL DATA**



Ref.	Dimensions			
	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	5.75	6.25	0.226	0.246
B	6.90	7.40	0.272	0.291
C	2.75	3.25	0.108	0.128
D	0.95	1.52	0.037	0.060
E	7.70	8.20	0.303	0.323
F	0.051	0.203	0.002	0.008
G	0.15	0.31	0.006	0.012
H	2.15	2.62	0.085	0.103
J	2.40		0.094	
K		4.20		0.165
L	3.30		0.130	

DO-214AB (SMC)

**REEL SPECIFICATION**

P/N	PKG	QTY
ES3A THRU ES3G	SMC	3000

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