

**SURFACE MOUNT
SUPER FAST RECTIFIERS**

REVERSE VOLTAGE - **50 to 400** Volts
FORWARD CURRENT - **3.0** Amperes

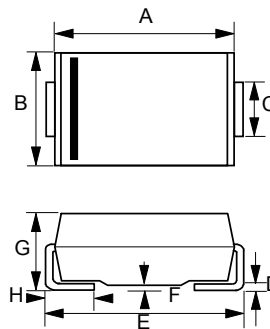
FEATURES

- Glass passivated chip
- Super fast switching for high efficiency
- For surface mounted applications
- Low forward voltage drop and high current capability
- Low reverse leakage current
- Plastic material has UL flammability classification 94V-0

MECHANICAL DATA

- Case : Molded plastic
- Polarity : Color band denotes cathode
- Weight : 0.007 ounces, 0.21 grams

SMC



SMC		
DIM.	MIN.	MAX.
A	6.60	7.11
B	5.59	6.22
C	2.92	3.18
D	0.15	0.31
E	7.75	8.13
F	0.05	0.20
G	2.01	2.50
H	0.76	1.52

All Dimensions in millimeter

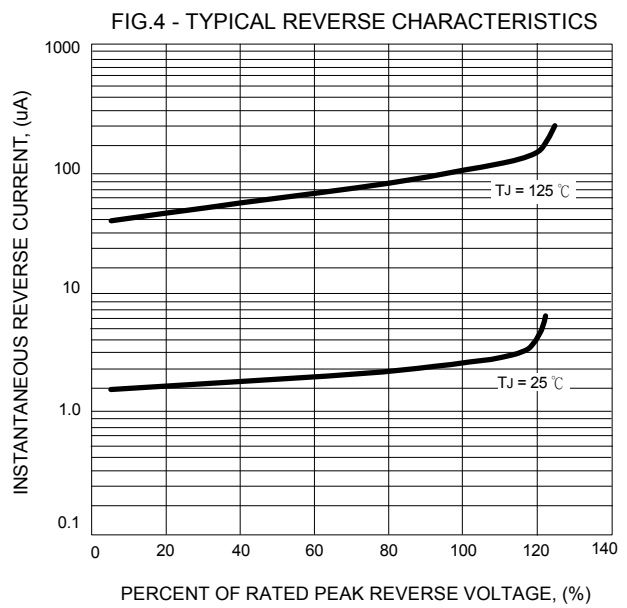
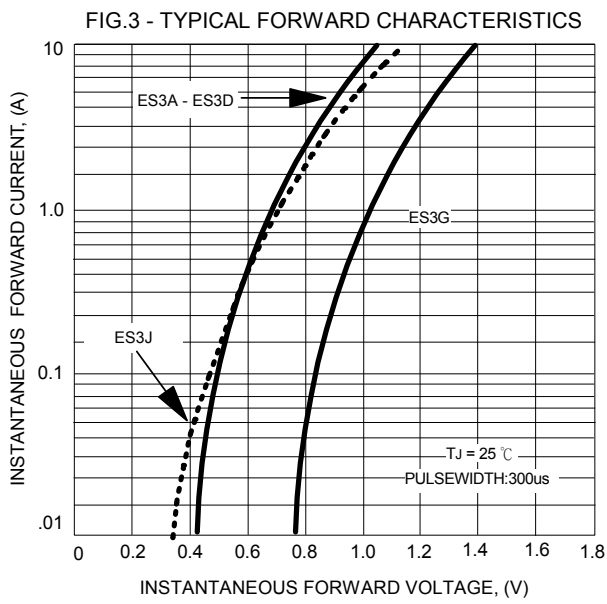
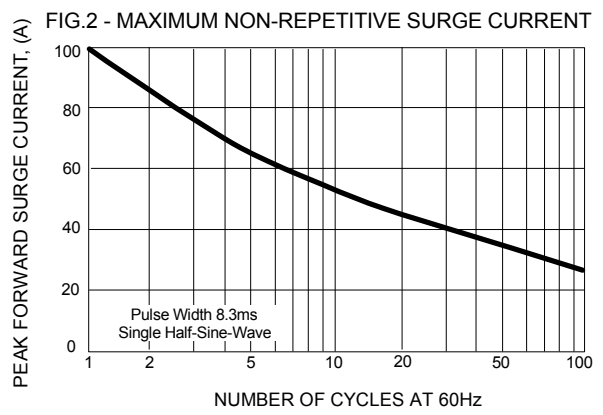
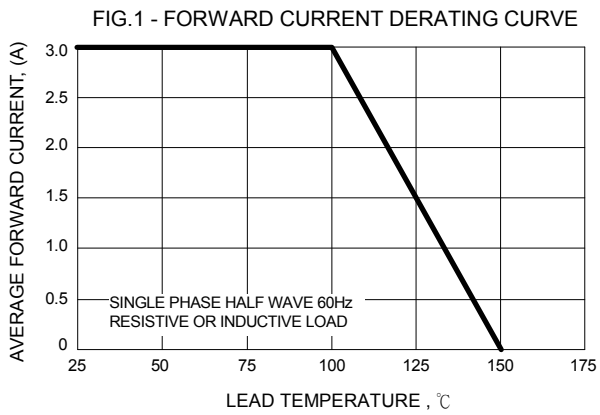
MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	ES3A	ES3B	ES3C	ES3D	ES3G	ES3J	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	150	200	400	600	V
Maximum RMS Voltage	V _{RMS}	35	70	105	140	280	420	V
Maximum DC Blocking Voltage	V _{DC}	50	100	150	200	400	600	V
Maximum Average Forward Rectified Current @T _L =110°C	I _(AV)	3.0						A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load	I _{FSM}	100						A
Peak Forward Surge Current 1ms single half sine-wave @T _j =25°C	I _{FSM}	200						A
I ² t Rating for fusing (3ms ≤ t ≤ 8.3ms)	I ² t	41.5						A ² S
Maximum forward Voltage at 3.0A DC	V _F	0.92				1.25	1.30	V
Maximum DC Reverse Current @T _J =25 °C at Rated DC Blocking Voltage @T _J =125 °C	I _R	10 500						uA
Maximum Reverse Recovery Time (Note 1)	T _{RR}	25 20 (Typ.)					35 30 (Typ.)	ns
Typical Junction Capacitance (Note 2)	C _J	45						pF
Typical Thermal Resistance (Note 3)	R _{θ JL}	10					15	°C/W
	R _{θ JA}	50						°C/W
Operating Temperature Range	T _J	-55 to + 150						°C
Storage Temperature Range	T _{STG}	-55 to + 150						°C

NOTES : 1. Reverse Recovery Test Conditions : I_F=0.5A, I_R=1.0A, I_{RR}=0.25A.
2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.
3. Thermal Resistance junction to Lead and Ambient.

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