

**SURFACE MOUNT  
SUPER FAST RECTIFIERS**

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

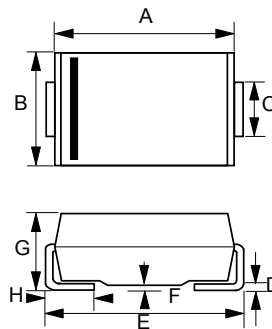
**FEATURES**

- 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

**MECHANICAL DATA**

- Case : Molded plastic
- Case Material: Molding compound, UL Flammability classification 94V-0, (No Br. Sb. Cl.) "Halogen-free".
- 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

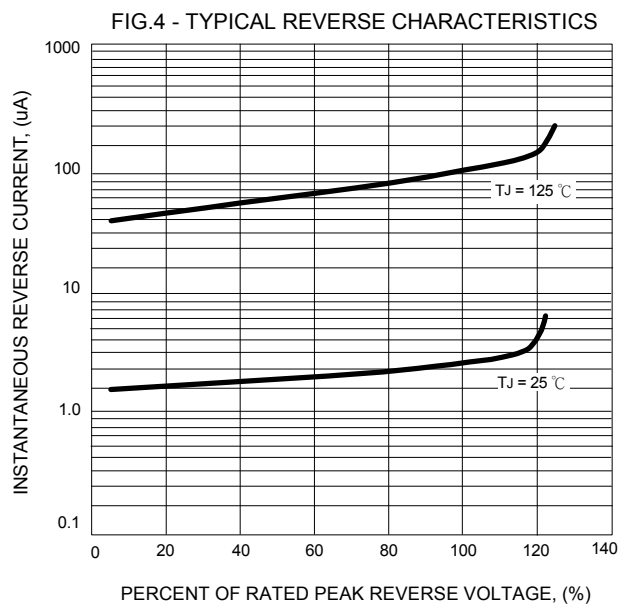
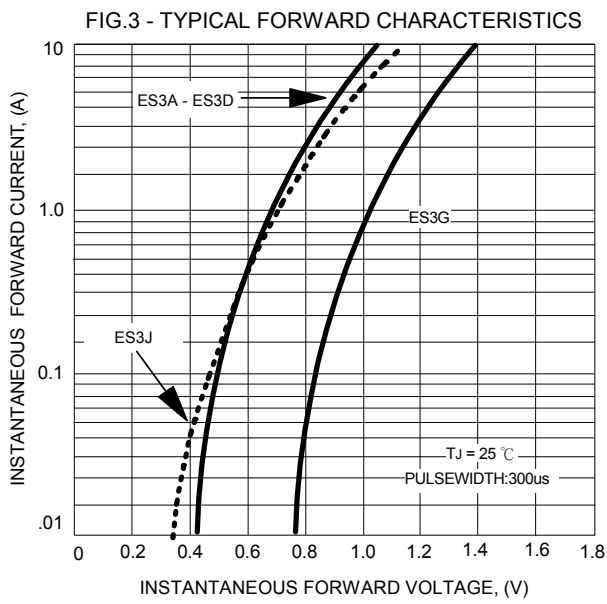
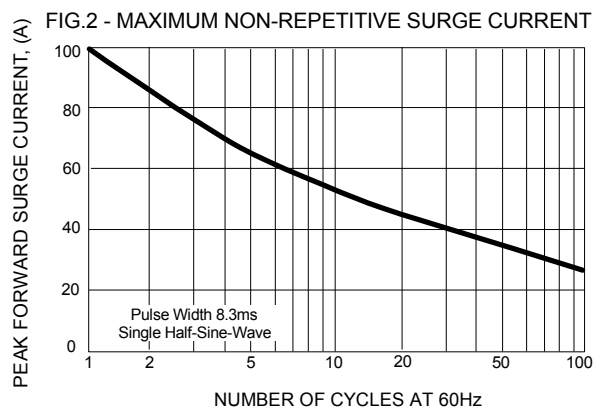
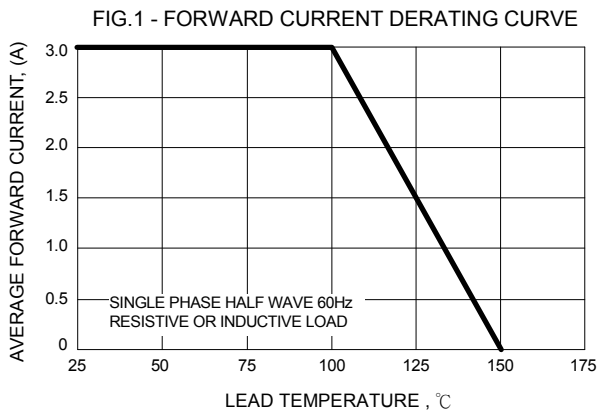
**MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS**

Ratings at 25°C ambient temperature unless otherwise specified.

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

NOTES : 1. Reverse Recovery Test Conditions : I<sub>F</sub>=0.5A, I<sub>R</sub>=1.0A, I<sub>RR</sub>=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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