

**SURFACE MOUNT
SUPER FAST RECTIFIERS**

REVERSE VOLTAGE - **600 to 1000** Volts
FORWARD CURRENT - **3.0** Amperes

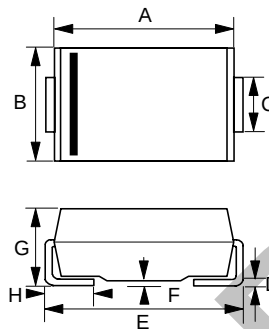
FEATURES

- 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	2.62
H	0.76	1.52
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%

CHARACTERISTICS	SYMBOL	ES3J	ES3K	ES3M	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	600	800	1000	V
Maximum Average Forward Rectified Current @TL =100°C	I(AV)	3.0			A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)	I _{FSM}	100			A
Maximum forward Voltage at 3.0A DC	V _F	1.3	1.5	1.7	V
Maximum DC Reverse Current @TJ =25°C at Rated DC Blocking Voltage @TJ =125°C	I _R	10 500			uA
Maximum Reverse Recovery Time (Note 1)	T _{RR}	35	50		ns
Typical Junction Capacitance (Note 2)	C _J	45			pF
Typical Thermal Resistance (Note 3)	RθJL	15			°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.

REV. PRE, 24-May-2000

FIG.1 - FORWARD CURRENT DERATING CURVE

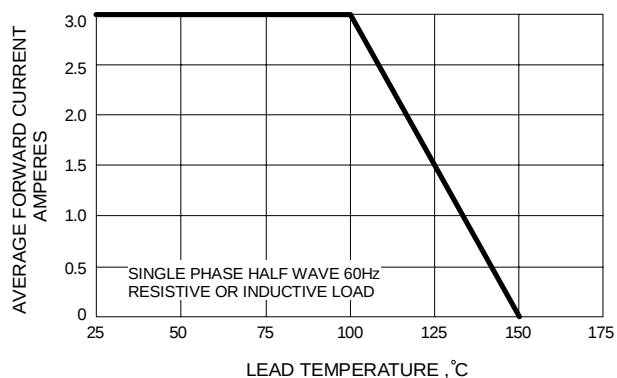


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

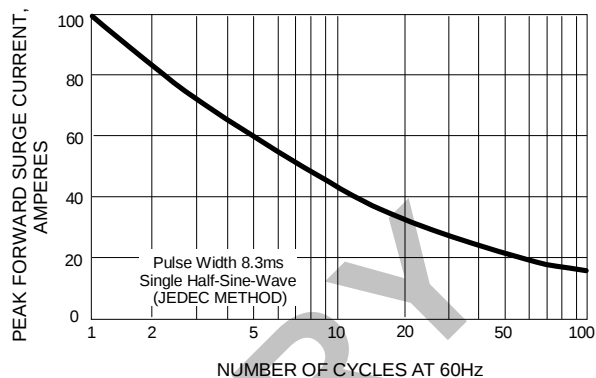


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

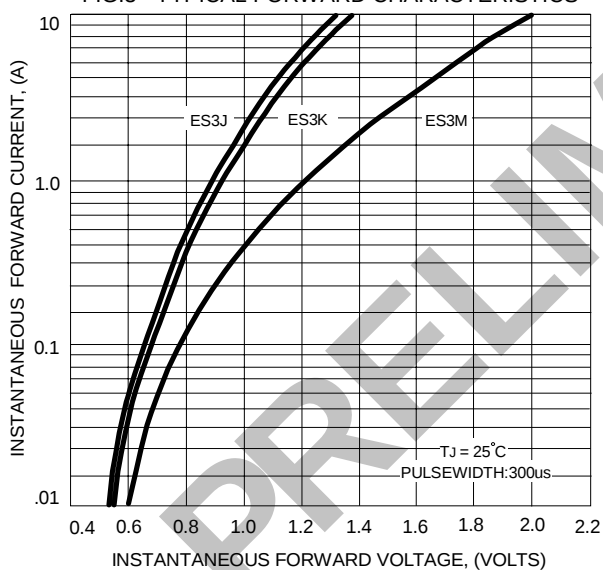


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

