

**SURFACE MOUNT
FAST RECOVERY RECTIFIERS**

REVERSE VOLTAGE - **50 to 1000** Volts
FORWARD CURRENT - **1.0** Ampere

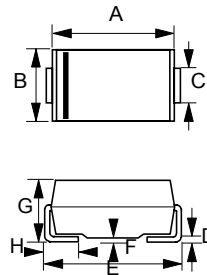
FEATURES

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

MECHANICAL DATA

- Case : Molded plastic
- Polarity : Indicated by cathode band
- Weight : 0.002 ounces, 0.064 grams

SMA



SMA		
DIM.	MIN.	MAX.
A	4.06	4.57
B	2.29	2.92
C	1.27	1.63
D	0.15	0.31
E	4.83	5.59
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	RS1A	RS1B	RS1D	RS1G	RS1J	RS1K	RS1M	UNIT
Maximum Recurrent Peak Reverse Voltage	V _{RRM}	50	100	200	400	600	800	1000	V
Maximum RMS Voltage	V _{RMS}	35	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	V _{DC}	50	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current @T _L = 90°C	I _(AV)	1.0							A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)	I _{FSM}	30							A
Maximum forward Voltage at 1.0A DC	V _F	1.3							V
Maximum DC Reverse Current @T _J = 25°C at Rated DC Blocking Voltage @T _J = 125°C	I _R	5.0 200							uA
Maximum Reverse Recovery Time (Note 1)	T _{RR}	150					250	500	ns
Typical Junction Capacitance (Note 2)	C _J	15							pF
Typical Thermal Resistance (Note 3)	R _{θJL}	30							°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. 3, Mar-2005, KSEA01

FIG.1 - FORWARD CURRENT DERATING CURVE

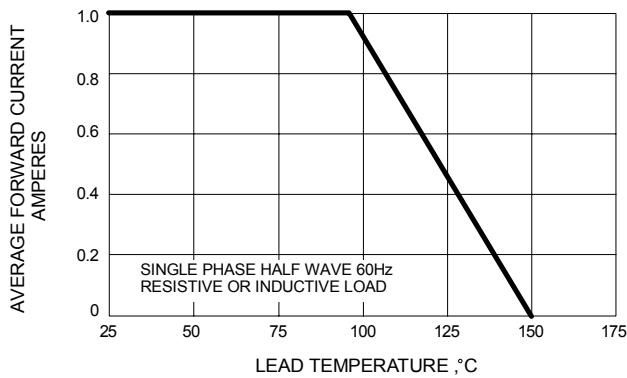


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

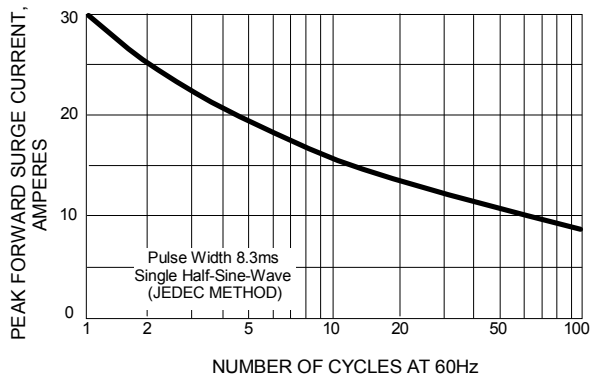


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

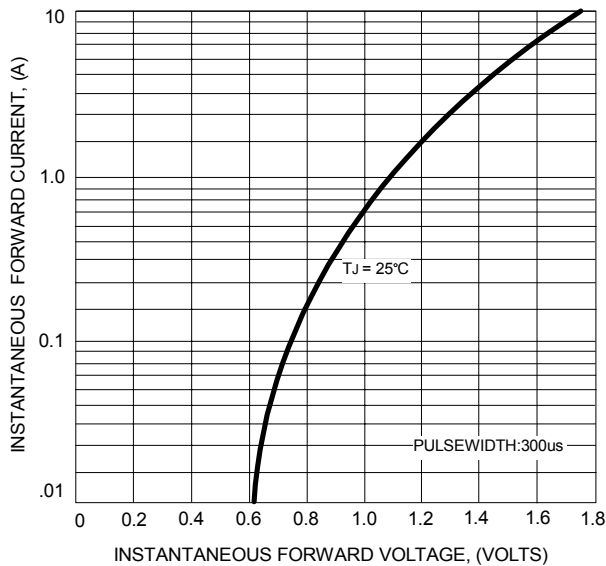


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

