



S3A~S3M

Surface Mount Standard Rectifiers

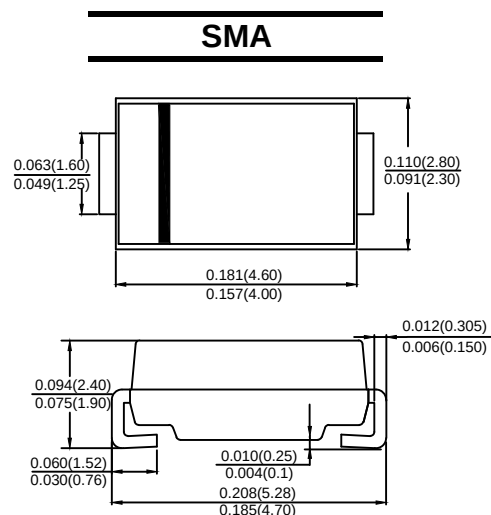
FEATURES

- Low profile package
- Glass Passivated Chip Junction
- Easy to pick and place
- High forward surge capability
- High temperature soldering : 260°C/10 seconds at terminals
- Lead free in comply with EU ROHS 2011/65/EU directives



Mechanical Data

- **Case** : SMA
- **Terminals** : Solder plated, solderable per MIL-STD-750, Method 2026
- **Polarity** : Cathode line denotes the cathode end
- **Mounting Position** : Any



Dimensions in inches and (millimeters)

Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified

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

For capacitive load derate current by 20%

Type Number	SYMBOL	S3A	S3B	S3D	S3G	S3J	S3K	S3M	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
Average Rectified Output Current @T _L =90 °C	I _{F(AV)}	3.0							A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	80							A
Forward Voltage @IF=3.0A	V _{FM}	1.0							V
Peak Reverse Current @T _A =25 °C	I _R	5.0							uA
At Rated DC Blocking Voltage @T _A =125 °C		100							
I ² t Rating for fusing (t <8.3ms)	I ² _t	16.56							A ² s
Typical Junction Capacitance (Note 1)	C _J	43							pF
Typical Thermal Resistance Junction to Ambient(Note 2)	R _{θ JA}	47							°C/W
Operating Temperature Range	T _J	-55 to+150							°C
Storage Temperature Range	T _{STG}	-55 to +150							°C



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Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

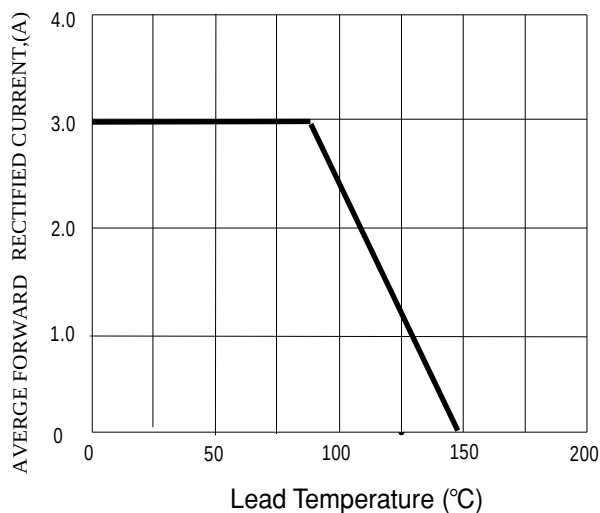


FIG.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

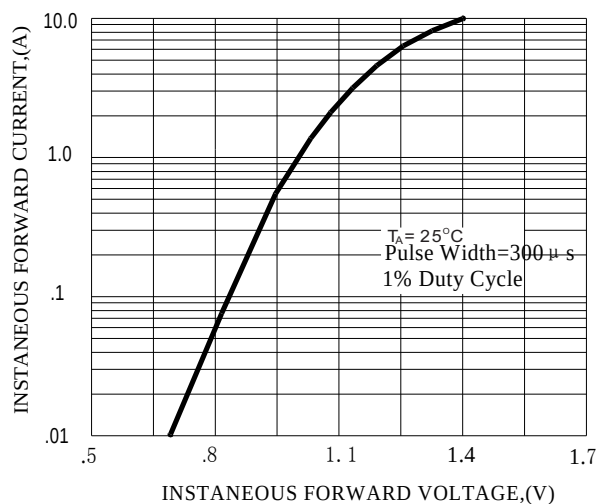


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

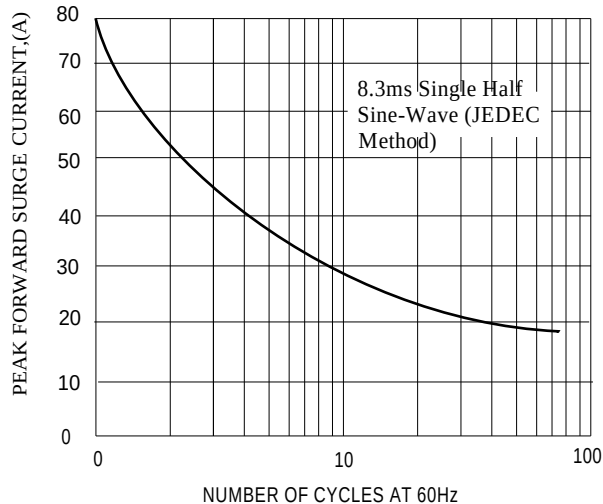
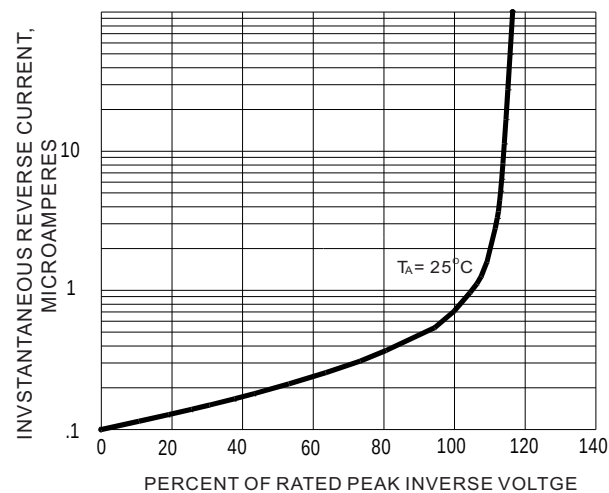


FIG.4-TYPICAL REVERSE CHARACTERISTICS



SMA PAD LAYOUT

