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TPS3AA-TPS3MA

Surface Mount General Purpose Silicon Rectifiers

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Features

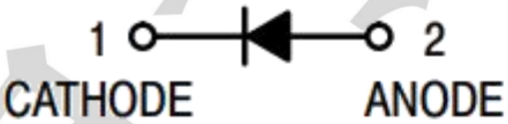
- For surface mounted applications
- Low profile package
- Ideal for automated placement
- Reverse Voltage - 50 to 1000 V
- Forward Current - 3 A

Applications

- power supply
- LED driver
- Battery protector
- adapter
- Voltage protector



SMA



Absolute Maximum Ratings and Electrical characteristics

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

Parameter		Symbols	TPS 3AA	TPS 3BA	TPS 3DA	TPS 3GA	TPS 3JA	TPS 3KA	TPS 3MA	Units
Maximum Repetitive 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		$I_{F(AV)}$	3							A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load		I_{FSM}	80							A
Max Instantaneous Forward Voltage at 1 A		V_F	1.1							V
Maximum DC Reverse Current at Rated DC Reverse Voltage	T_a = 25°C	I_R	5.0							uA
	T =125°C		100							
Typical Junction Capacitance (1)		C_j	32							PF
Typical Thermal Resistance (2)		$R_{\theta JA}$	50							°C/W
Operating Junction Temperature Range		T_j	-55 ~ +150							°C
Storage Temperature Range		T_{stg}	-55 ~ +150							°C

(1). Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2). P.C.B. mounted with 2.0" X 2.0" (5 X 5 cm) copper pad areas.

Typical Electrical Characteristic Curves

Fig.1 Forward Current Derating Curve

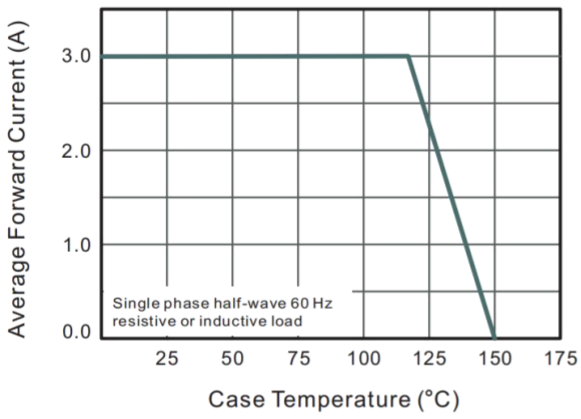


Fig.2 Typical Instaneous Reverse Characteristics

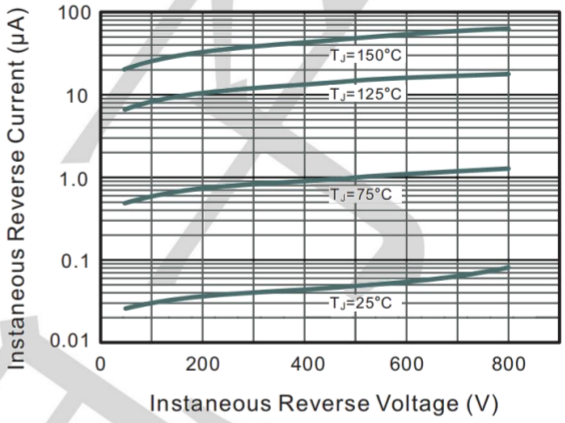


Fig.3 Typical Forward Characteristic

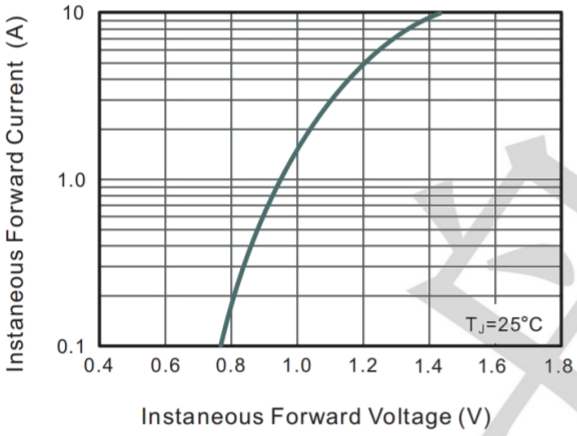


Fig.4 Typical Junction Capacitance

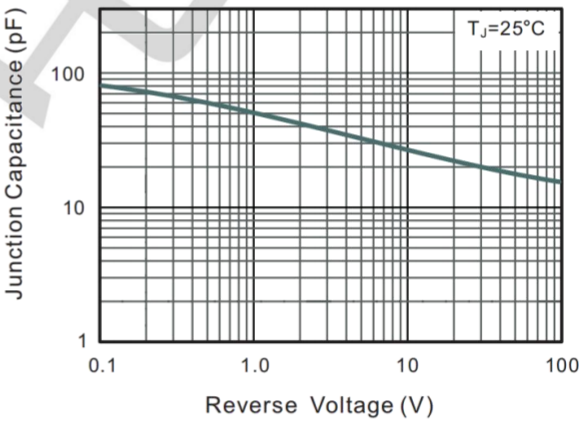
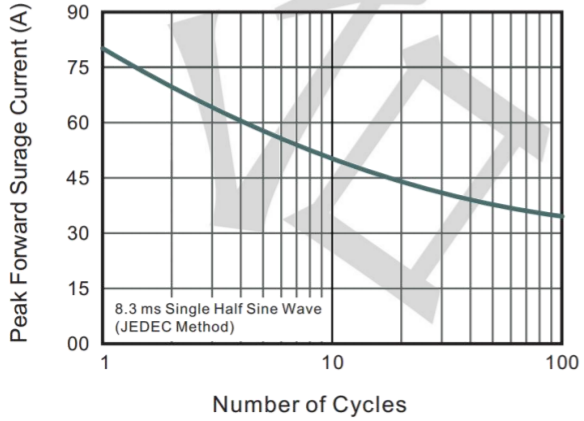
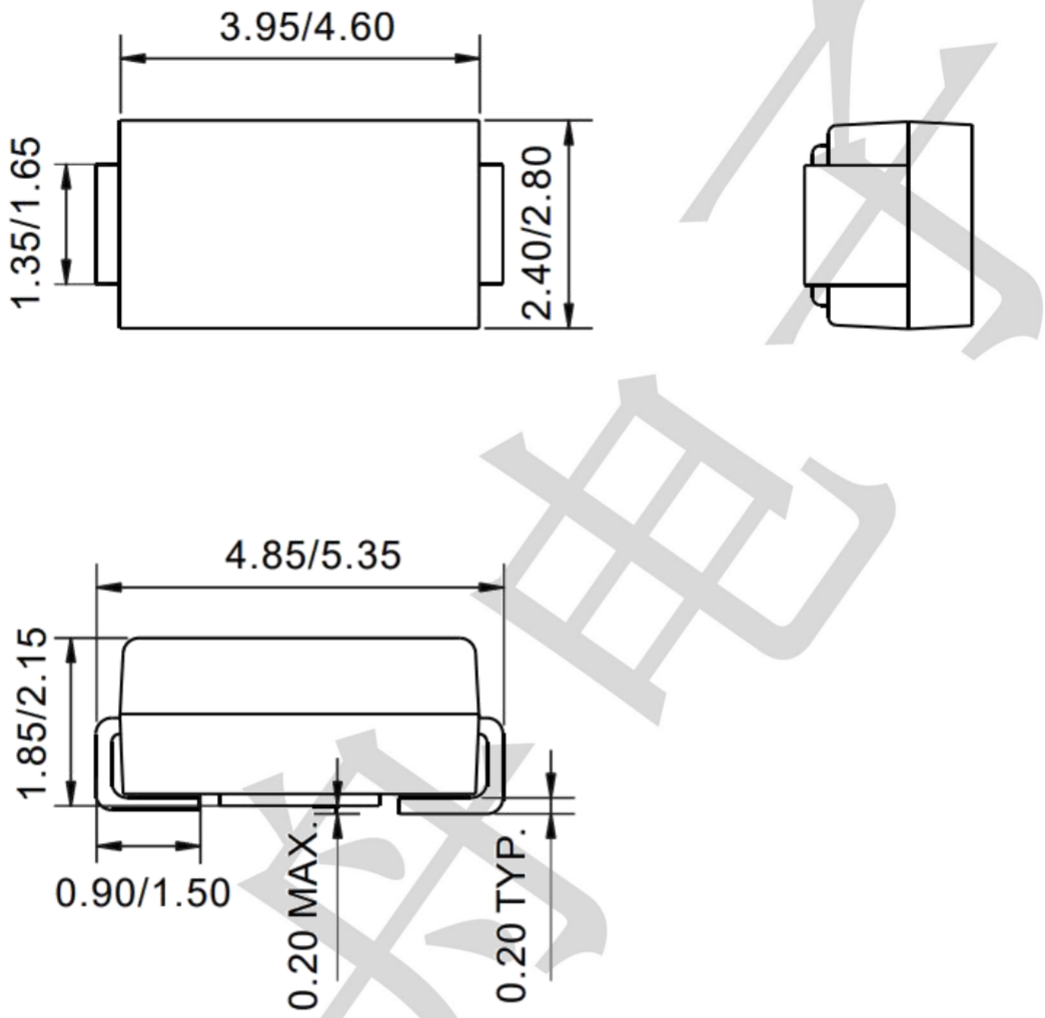


Fig.6 Maximum Non-Repetitive Peak Forward Surage Current



Package Outline Dimensions (unit: mm)

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Mounting Pad Layout (unit: mm)

