TECH PUBLIC
台舟电子

TPS1MA-TPS1YA

Surface Mount General Purpose Silicon Rectifiers

WWW.TECHPUBLIC.COM

Features

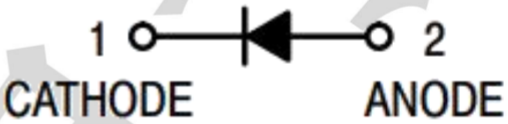
- For surface mounted applications
- Low profile package
- Ideal for automated placement
- Reverse Voltage - 1000V to 2000 V
- Forward Current - 1 A

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	TPS1 MA	TPS1 TA	TPS1 WA	TPS1 XA	TPS1 YA	Units
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	1000	1300	1600	1800	2000	V
Maximum RMS voltage		V_{RMS}	700	760	780	840	900	V
Maximum DC Blocking Voltage		V_{DC}	1000	1300	1600	1800	2000	V
Maximum Average Forward Rectified Current		$I_{F(AV)}$	1.0					A
Peak Forward Surge Current,8.3ms Single Half Sine-wave Superimposed on Rated Load		I_{FSM}	30					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		50					
Typical Junction Capacitance (1)		C_j	20					PF
Typical Thermal Resistance (2)		$R_{\theta JA}$	85					°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- MAXIMUM FORWARD CURRENT DERATING CURVE

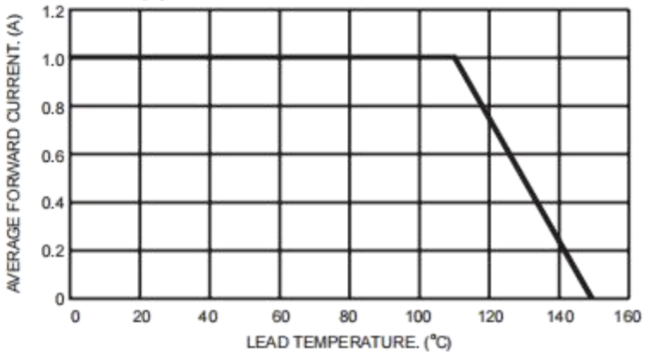


FIG.2- TYPICAL REVERSE CHARACTERISTICS

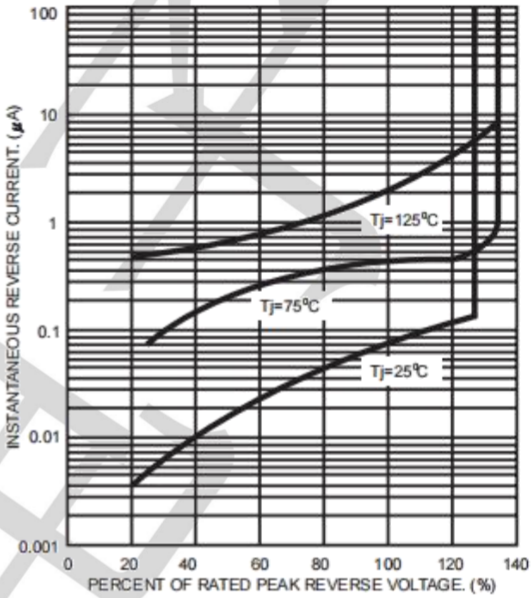


FIG.3- MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

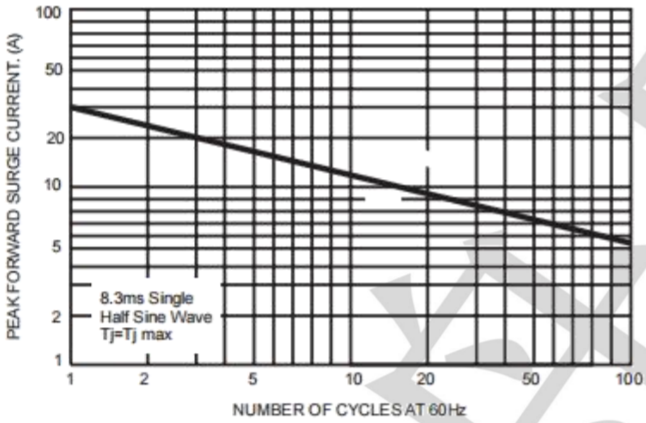


FIG.5- TYPICAL FORWARD CHARACTERISTICS

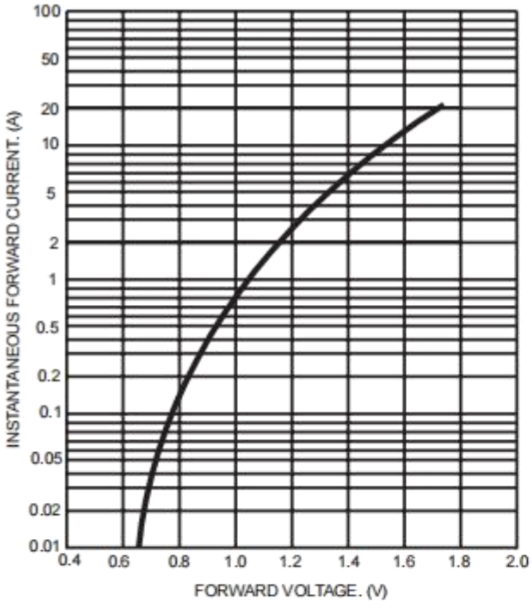


FIG.4- TYPICAL JUNCTION CAPACITANCE

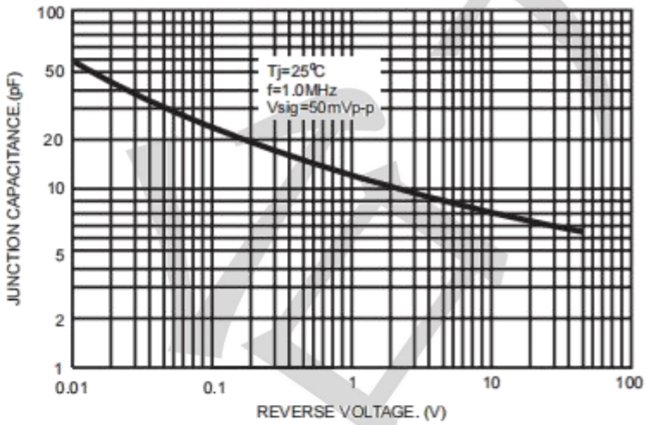
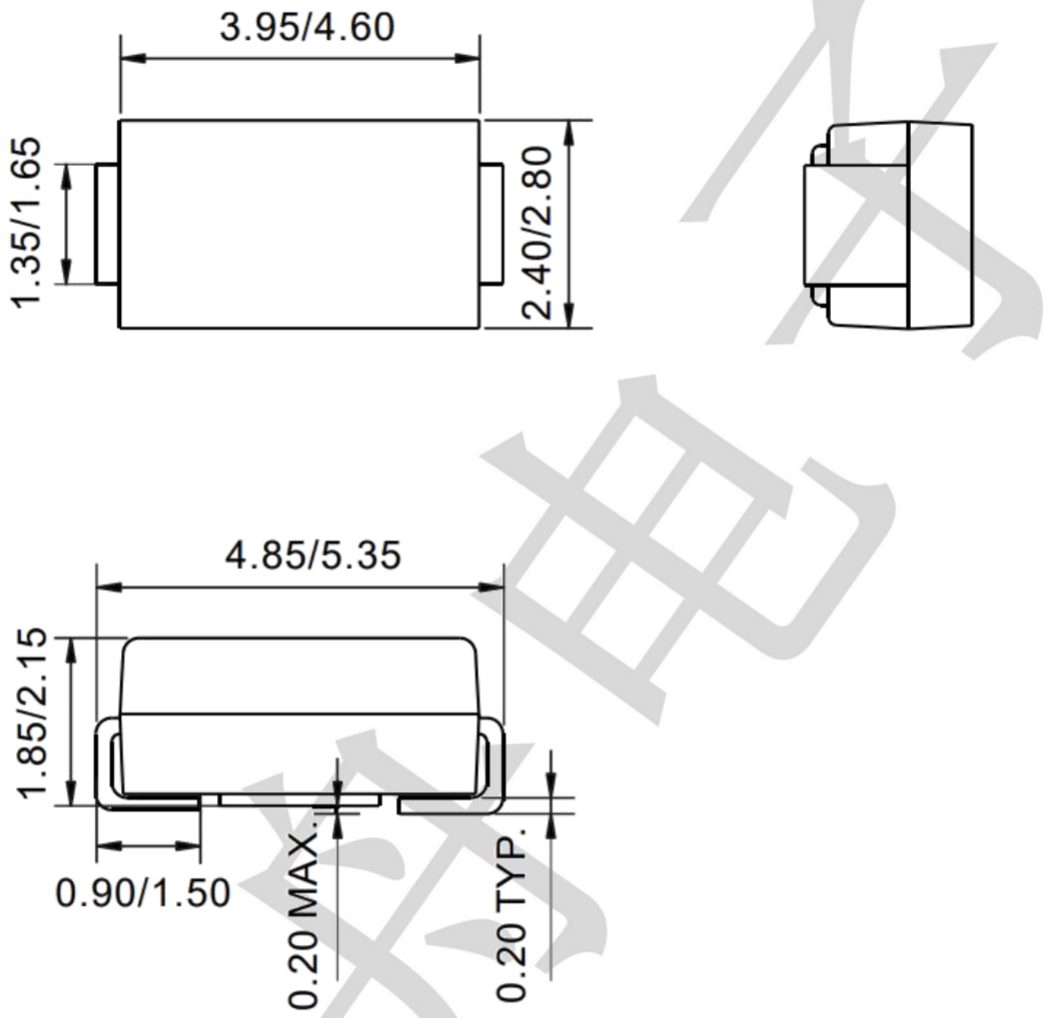


FIG.6- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

Package Outline Dimensions (unit: mm)

SMA



Mounting Pad Layout (unit: mm)

