TECH PUBLIC
台舟电子

TPSM520A
Surface Mount Rectifiers

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Features

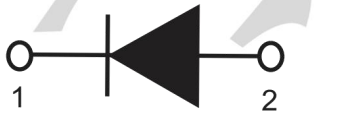
- Low cost
- Low leakage
- High surge capability
- High current capability
- RoHs Product

Applications

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



SMA



Cathode Anode

Absolute Maximum Ratings

Ratings at 25℃ ambient temperature unless otherwise specified.
Single phase,half wave,60HZ,resistive or indu ctive load.For capacitive load,derate by 20%.

Parameter	Symbol	Value	Unit
Peak Repetitive Reverse Voltage	V_{RRM}	2000	**V**
Maximum RMS voltage	V_{RMS}	1400	**V**
DC Blocking Voltage	V_{DC}	2000	**V**
Maximum Average Forward Output Current	$I_{F(AV)}$	1.0	**A**
Peak Forward Surge Current (8.3ms single half sine-wave, per leg)	I_{FSM}	30	**A**
Maximum instantaneous forward voltage @IF=1.0A	V_F	2.0	**V**
Maximum DC Reverse Current @TA=25℃	I_R	5	**uA**
at Rated DC Blocking Voltage @TA=100℃	I_R	50	**uA**
Typical Junction Capacitance (Note 1)	C_J	20	**PF**
Operating Junction Temperature Range	T_J	−55 to +125	**°C**
Storage Temperature Range	T_{STG}	−55 to +150`	**°C**
Thermal Resistance	$R_{\theta JC}$	15	**°C/W**
Thermal Resistance	$R_{\theta JA}$	70	**°C/W**

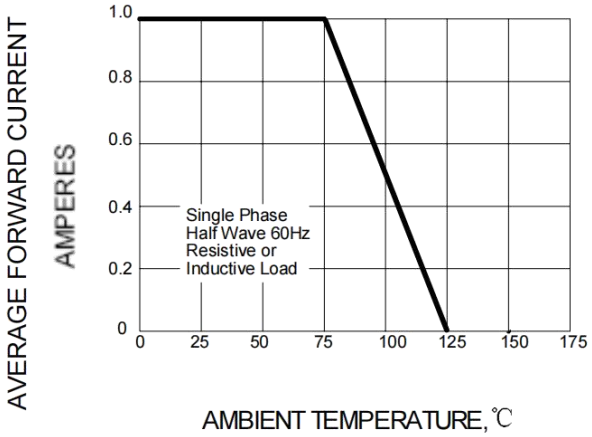
Note 1: Thermal resistance from junction to ambient and from junction to lead mounted on P.C.B. with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas

2. Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

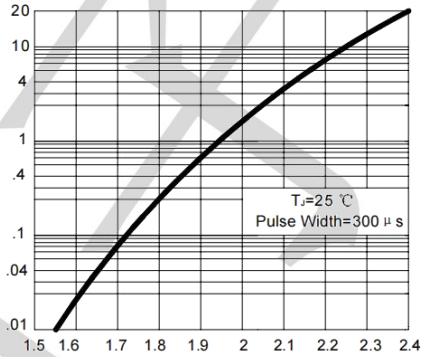
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Typical Electrical Characteristic Curves

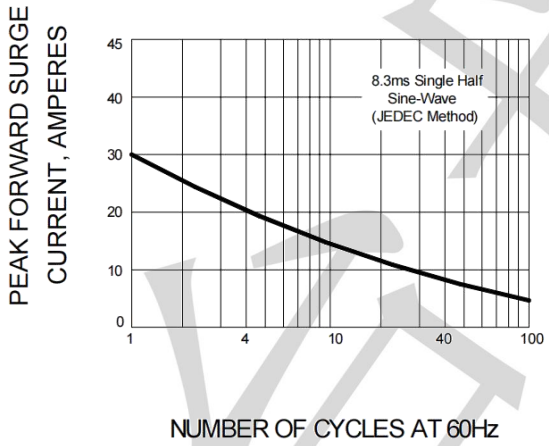
TYPICAL FORWARD CURRENT DERATING CURVE



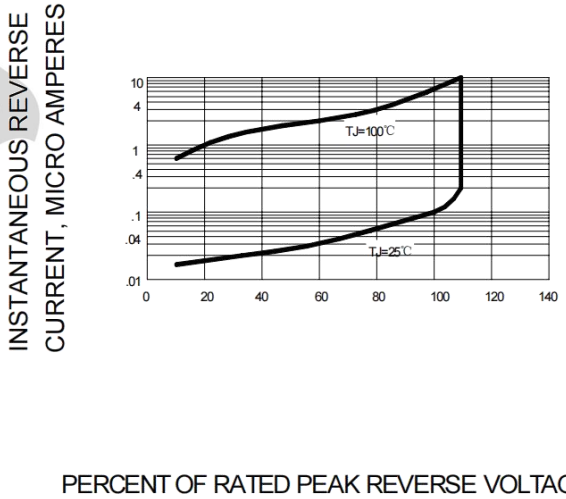
TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

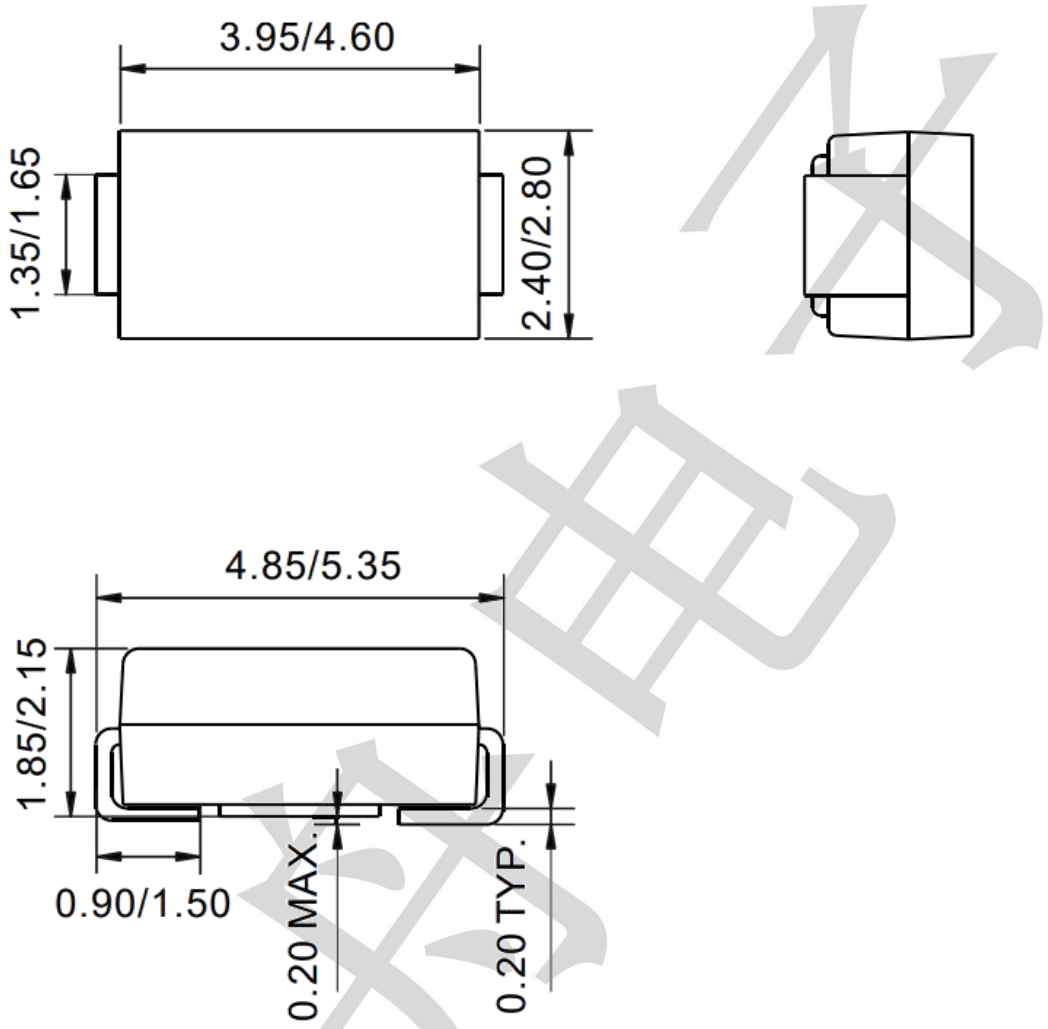


TYPICAL REVERSE CHARACTERISTICS



Package Outline Dimensions (unit: mm)

SMA



Mounting Pad Layout (unit: mm)

