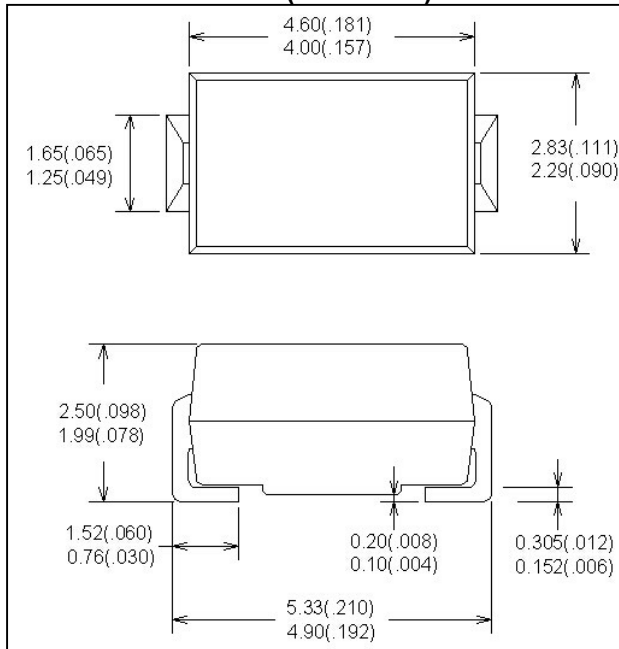


Surface Mount General Purpose Rectifier 1.0 A / 2000 V

Package Outline Dimensions in mm (inches)

SMAW (SMA Wire)



Features

- Low profile package
- Open junction
- Low leakage current
- High forward surge capability
- Meets MSL level 1, per J-STD-020, LF maximum peak of 260 °C
- Compliant to RoHS Directive 2002/95/EC and in accordance to WEEE 2002/96/EC

Typical Applications

- For use in general purpose rectification of power Supplies.

Mechanical Data

- Case:SMAS Plastic Package
- Polarity:Color band denotes cathode end

Maximum ratings

Ratings at TA=25°C (unless otherwise specified)

Parameter	Symbol	EM520S	Unit
Marking		EM520	
Maximum recurrent peak reverse voltage	V _{RRM}	2000	V
Maximum RMS voltage	V _{RMS}	1400	V
Maximum DC blocking voltage	V _{DC}	2000	V
Maximum average forward rectified current (Note1)	I _{F(AV)}	1.0	A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	30	A
Storage temperature range	T _S	-55 ~ 150	°C
Operating Junction temperature range	T _J	-55 ~ 125	°C
Thermal Resistance (Note1)	R _{thJL}	30	°C /W

Note1: Mounted on PCB with 0.2" x 0.2" (5.0 mm x 5.0 mm) copper pad areas.

Electrical characteristics

Ratings at TA=25°C (unless otherwise specified)

Parameter	Test Conditions	Symbol	EM520S	Unit
Maximum forward voltage	I _F =1.0 A	V _F	1.10	V
Maximum DC reverse current at rated DC blocking voltage	TA=25°C	I _R	5.0	μA
	TA=100°C		50	
Typical junction capacitance	4.0 V, 1 MHz	C _j	15	pF

Characteristics Curves

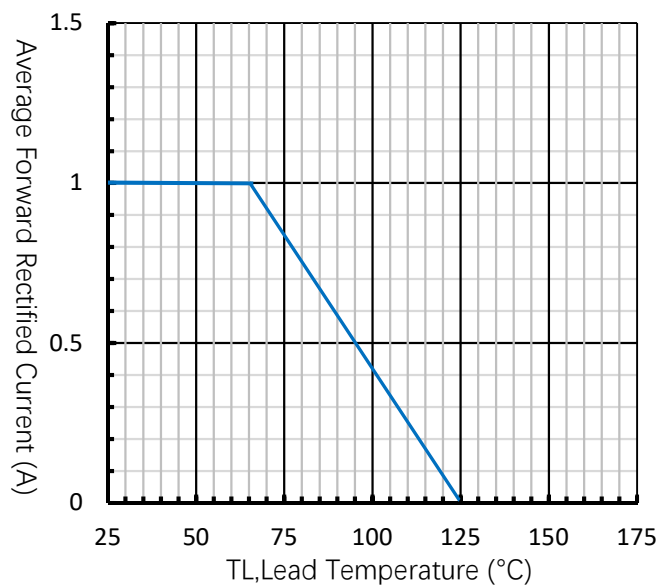


Fig.1 Forward Current Derating Curve

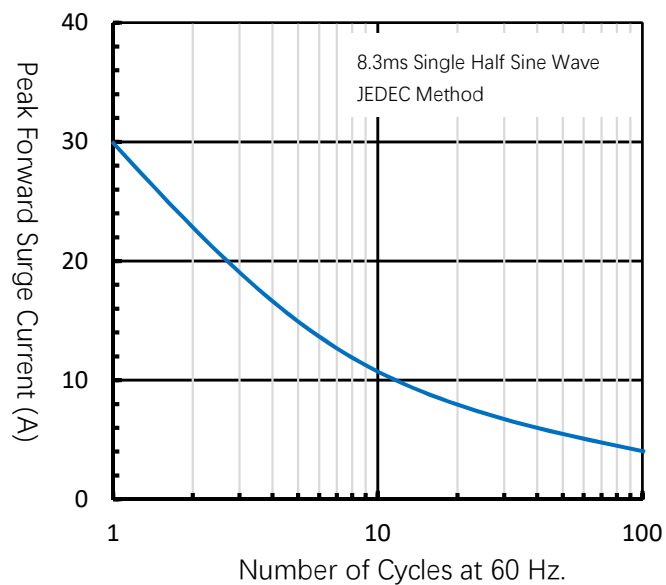


Fig.2 Forward Surge Current Capability

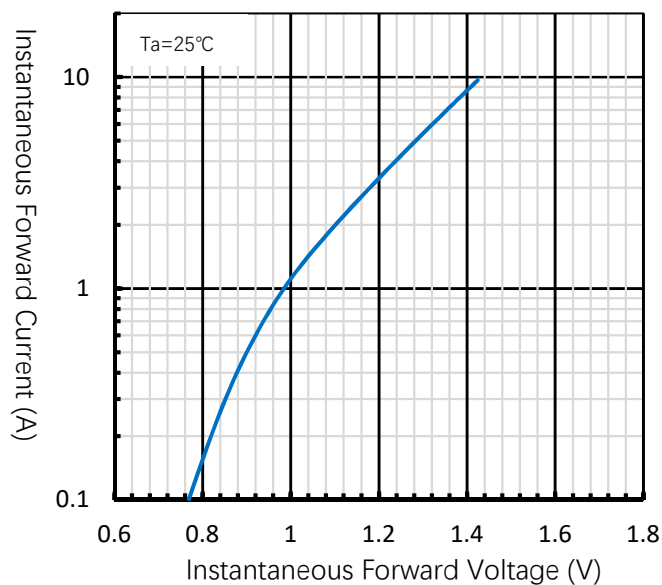


Fig. 3 Typical Forward Characteristic

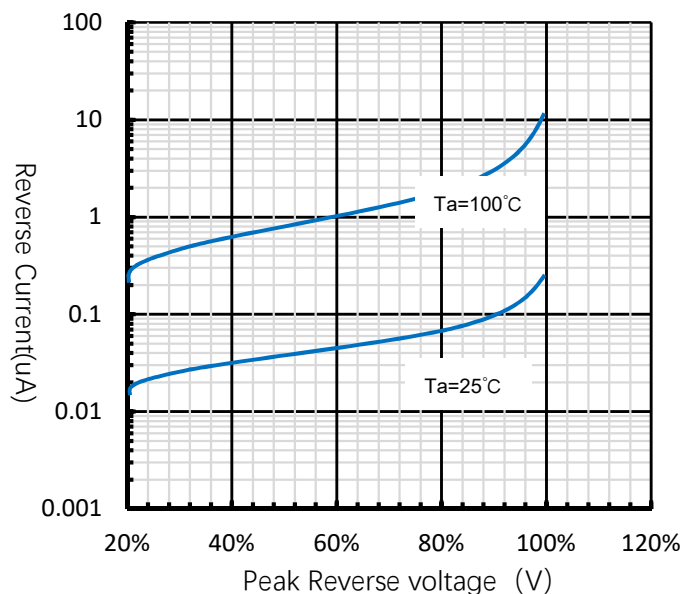


Fig. 4 Typical Reverse Characteristics