

Surface Mount Superfast Recovery Rectifier

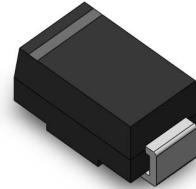
SM520A
2000V
0.5A
SMA

Features

- ◆ Low profile package
- ◆ Ideal for automated placement
- ◆ Glass passivated chip junction
- ◆ High forward surge capability

Mechanical Date

- ◆ Case : SMA
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ High temperature soldering guaranteed: 260 °C /10 seconds
- ◆ Polarity: Cathode line denotes the cathode end
- ◆ Mounting Position: Any

DO-214AC(SMA)


Absolute Maximum Ratings and Characteristics

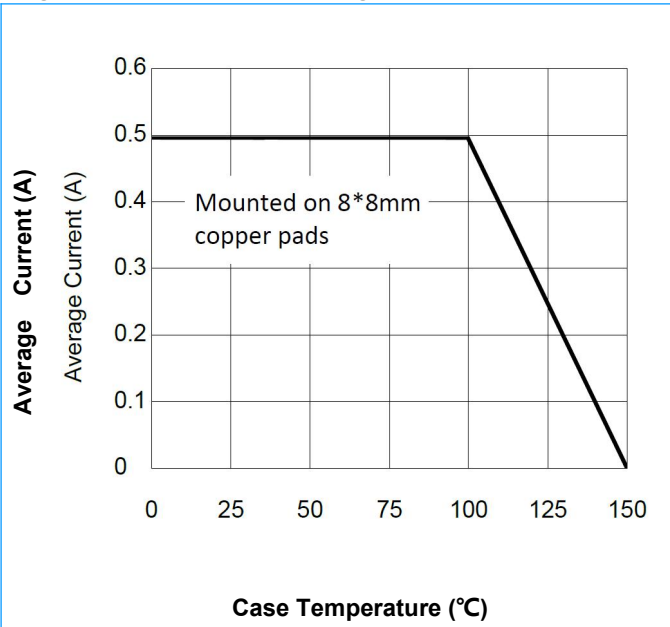
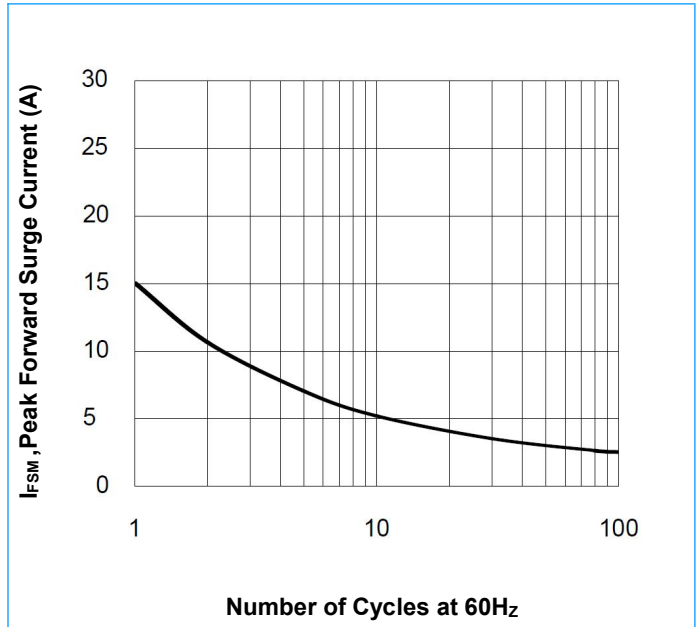
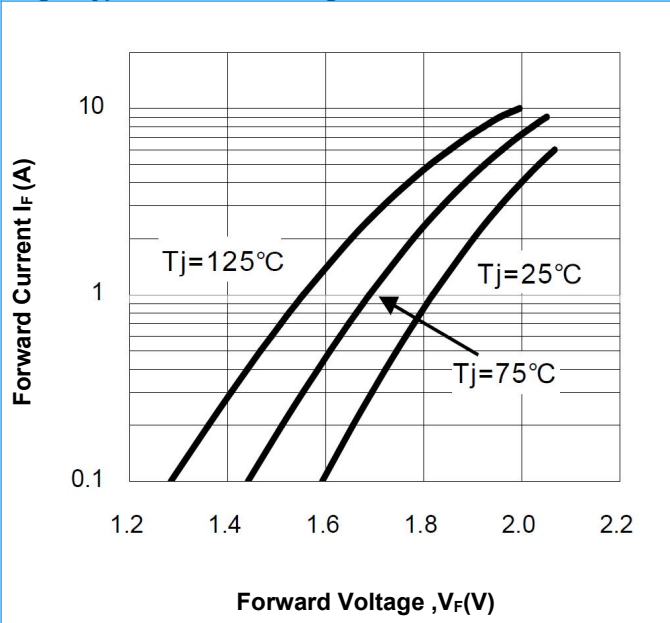
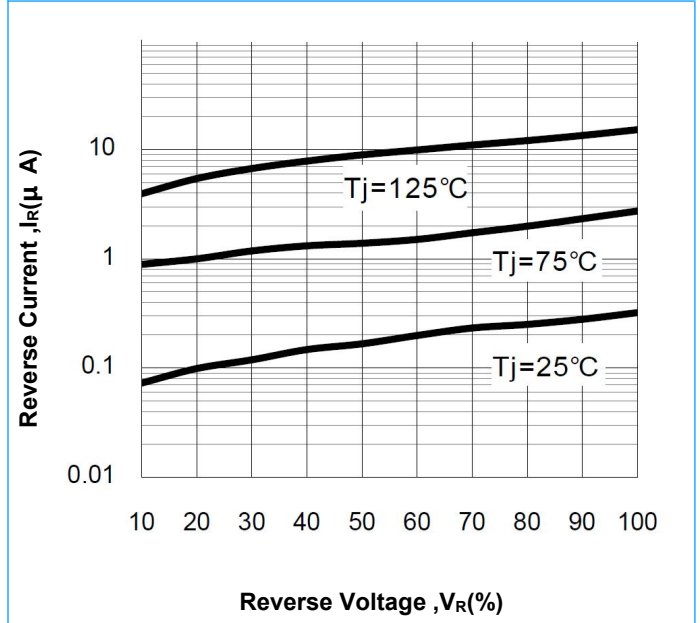
Ratings at 25 °C ambient temperature unless otherwise specified.

Parameter	Symbol	SM520A	Unit
Peak repetitive reverse voltage	V_{RRM}	2000	V
RMS reverse voltage	V_{RMS}	1400	V
DC blocking voltage	V_{DC}	2000	V
Maximum average forward output current	$I_{F(AV)}$	0.5	A
Peak Forward Surge Current: 8.3ms Single Half Sine Wave @ $T_J = 25^{\circ}C$	I_{FSM}	15	A
Rating for fusig ($t < 8.3ms$)	I^2t	0.94	A ² sec
Maximum Reverse current Rated V_R	I_R	$T_A = 25^{\circ}C$ 5	μA
		$T_A = 125^{\circ}C$ 50	
Maximum instantaneous forward Voltage @ 0.5A	V_F	2.2	V
Typical Thermal Resistance ⁽¹⁾	$R_{\theta JA}$	70	$^{\circ}C/W$
	$R_{\theta JC}$	25	
	$R_{\theta JL}$	30	
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150	$^{\circ}C$

NOTES:

(1) Units mounted on PCB with 10 mm x 20mmx0.1mm Copper Pads

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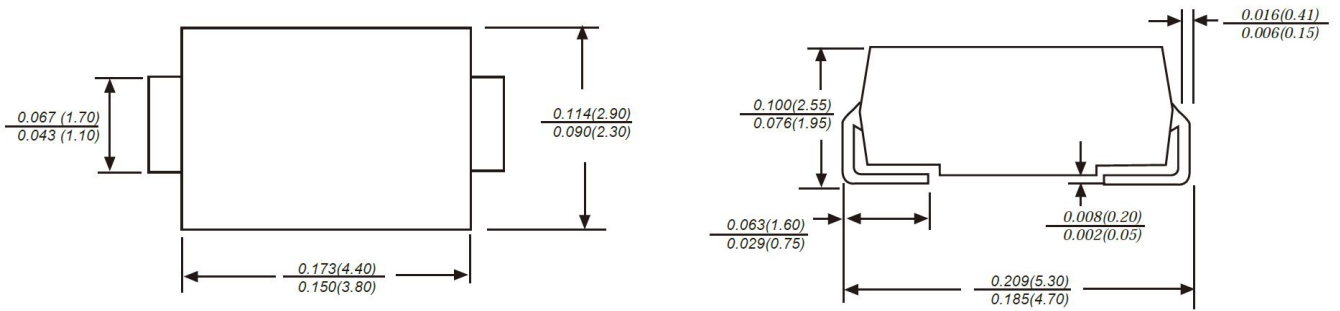
SM520A
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SMA
Rating and Characteristic Curves ($T_A=25^\circ\text{C}$ unless otherwise noted)
Fig1. Forward Current Derating Curve

Fig2. Surge Current Derating Curve

Fig3. Typical Forward Voltage Characteristic

Fig4. Typical Reverse Characteristic


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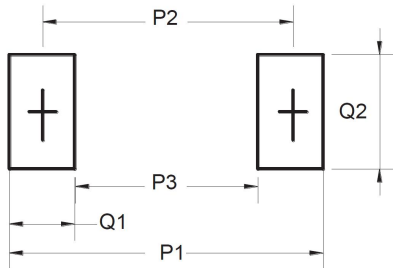
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SMA Package Outline (Unit:mm)

DO-214AC (SMA)



Mounting Pad Layout (Unit:mm)



Symbol	Millimeters
P1	6.50
P2	4.00
P3	1.50
Q1	2.50
Q1	1.70

Packaging Information

Part Number	Component Package	Quantity
SM520A	SMA	5000 PCS