

SuperSchottky – 5A, 20~200V Schottky barrier rectifiers



1. Features

- Plastic package has Underwriters Laboratory
- Flammability Classification 94V-0
- For surface mounted applications
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High current capability, low forward voltage drop

2. Mechanical Data

- Case: DO-214AA/SMB molded plastic body
- Terminals: leads solderable per MIL-STD-750, Method 2026
- Polarity: color band denotes cathode end
- Mounting Position: Any
- Weight: 0.0035 ounce, 0.098 grams

3. Marking and Circuit

Marking	Circuit
	

4. Specification

Absolute Maximum Rating & Electrical Characteristics

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load.

Parameters	Symbol	SS52	SS54	SS56	SS58	SS510	SS515	SS520	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	20	40	60	80	100	150	200	V
Maximum RMS voltage	V_{RMS}	14	28	42	56	70	105	140	V
Maximum DC blocking voltage	V_{DC}	20	40	60	80	100	150	200	V
Average Rectified Output Current at $T_L=100\text{ C}$	$I_{F(AV)}$	5.0							A
Non-Repetitive Peak Forward Surge Current: 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	120							A
Maximum Instantaneous Forward Voltage at 5.0 A	V_F	0.55	0.70	0.85	0.95				V
Maximum DC reverse current at rated DC blocking voltage	$T_J=25\text{ °C}$	0.5			0.05			mA	
	$T_J=100\text{ °C}$	50			10				
Typical thermal resistance	$R_{\theta JA}$	85.0							°C/W
Operating junction temperature range	T_J	-55 TO +150							°C
Storage temperature range	T_{STG}	-55 TO +150							°C

5. Typical Characteristic

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

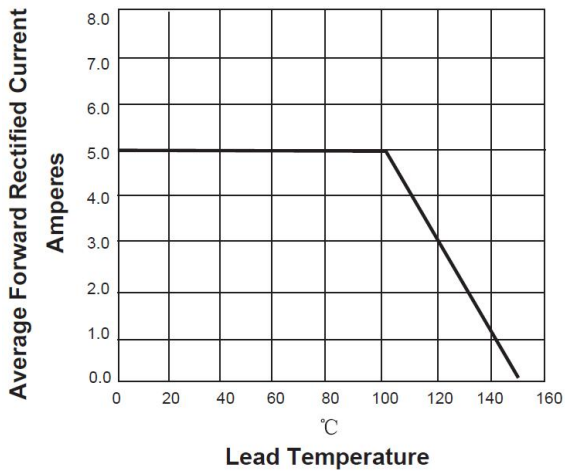


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

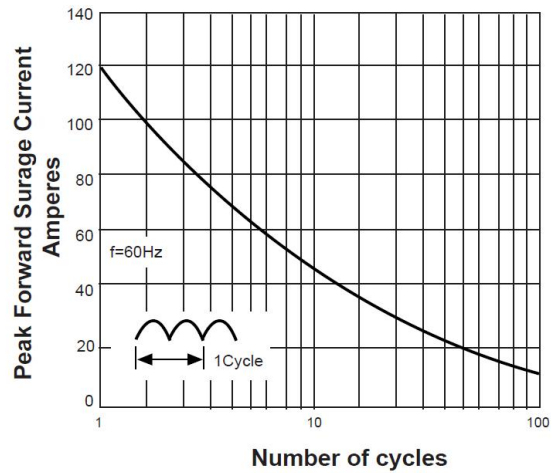


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

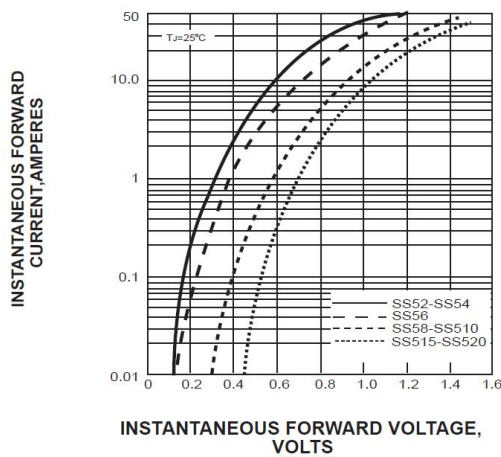
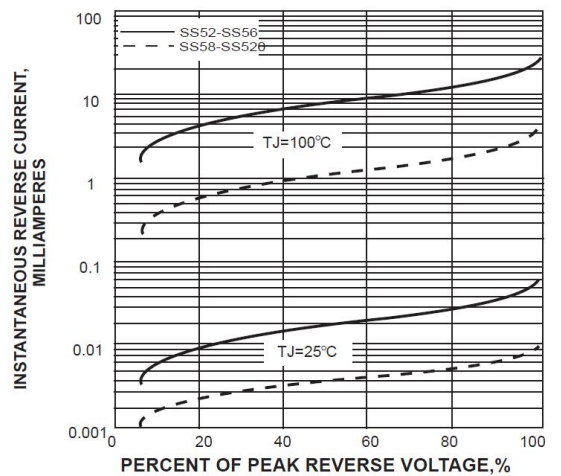
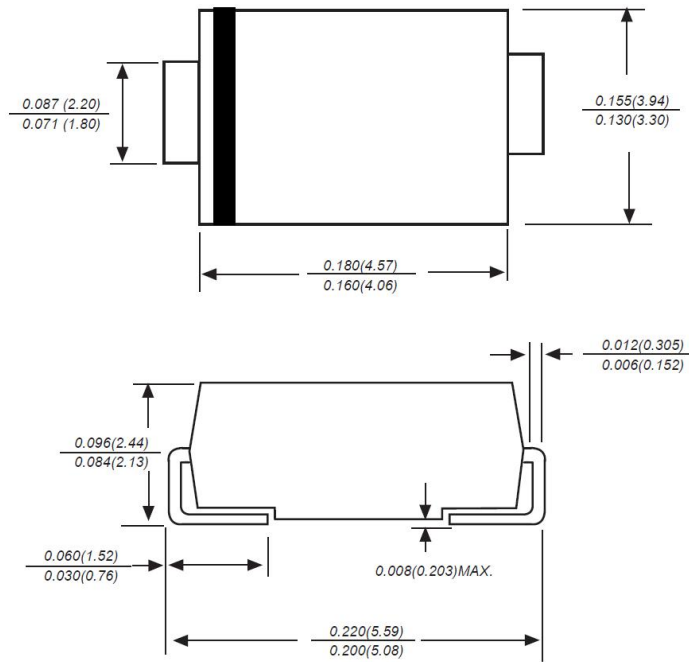


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS

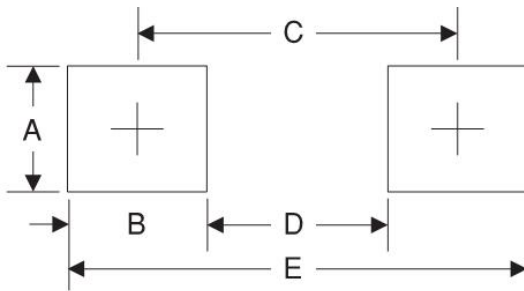


6. Dimension (DO-214AA/SMB)



Dimensions in inches and (millimeters)

Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	2.30	0.091
B	2.00	0.078
C	4.10	0.161
D	2.10	0.083
E	6.10	0.240

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