

SS54L THRU SS520L SCHOTTKY BARRIER RECTIFIER

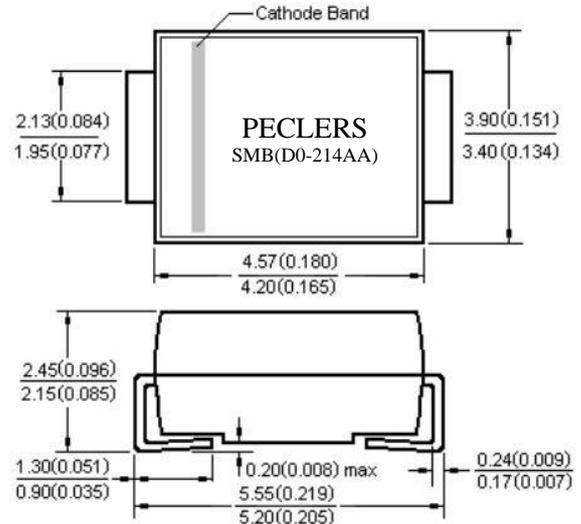
REVERSE VOLTAGE: 200 VOLTS
FORWARD CURRENT: 5 AMPERE

FEATURES

- Low switching noise
- Low forward voltage drop
- High current capability
- High switching capability
- High surge capability
- High reliability

MECHANICAL DATA

Case: Molded plastic, SMB/DO-214AA
Epoxy: UL 94V-O rate flame retardant
Lead: Axial leads, solderable per MIL-STD-202, method 208 guaranteed
Polarity: Color band denotes cathode end
Mounting position: Any
Weight: 0.0032ounce, 0.09gram



Dimensions in millimeters and (inches)

Maximum Ratings and Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.
Single phase, half wave, 60Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| PARAMETER | Symbols | SS54L | SS545L | SS55L | SS56L | SS58L | SS510L | SS515L | SS520L | Units |
|-----------------------------------------------------------------------------------------------------------|-----------------|-------------|--------|-------|-------|-------|--------|--------|--------|------------------|
| Maximum Recurrent Peak Reverse Voltage | V_{RRM} | 40 | 45 | 50 | 60 | 80 | 100 | 150 | 200 | Volts |
| Maximum RMS Voltage | V_{RMS} | 28 | 32 | 35 | 42 | 56 | 70 | 105 | 140 | Volts |
| Maximum DC Blocking Voltage | V_{DC} | 40 | 45 | 50 | 60 | 80 | 100 | 150 | 200 | Volts |
| Maximum Average Forward Current | $I_{F(AV)}$ | 5.0 | | | | | | | | Amp |
| Peak Forward Surge Current: 8.3ms single half sine-wave superimposed on rated load | I_{FSM} | 120 | | | | | | | | Amp |
| Rating for fusing (t<8.3ms) | I^2t | 59.76 | | | | | | | | A ² s |
| Maximum Forward Voltage at 5.0A (Note 1) | V_F | 0.46 | | 0.5 | | 0.75 | | 0.85 | | Volts |
| Maximum DC Reverse Current at $T_a=25^\circ\text{C}$ Rated DC Blocking Voltage $T_a=100^\circ\text{C}$ | I_R | | 0.20 | | | | 0.05 | | | mAmp |
| | | | 10.0 | | | | 5 | | | |
| Typical Junction Capacitance (Note 2) | C_J | 12 | | | | | | | | pF |
| Typical Thermal Resistance per leg (Note 3) | $R_{\theta JA}$ | 75 | | | | | | | | °C/W |
| Operating Temperature Range | T_J | -55 to +150 | | | | | | | | °C |
| Storage Temperature Range | T_{stg} | -55 to +150 | | | | | | | | °C |

Note: 1. Pulse Test with PW=300usec, 1% Duty Cycle.

2. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

3. Thermal Resistance from Junction to lead mounted on P.C.B. with 0.3" x 0.3" (8.0 mm x 8.0 mm) copper pad areas.

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Fig. 1 Forward Current Derating Curve

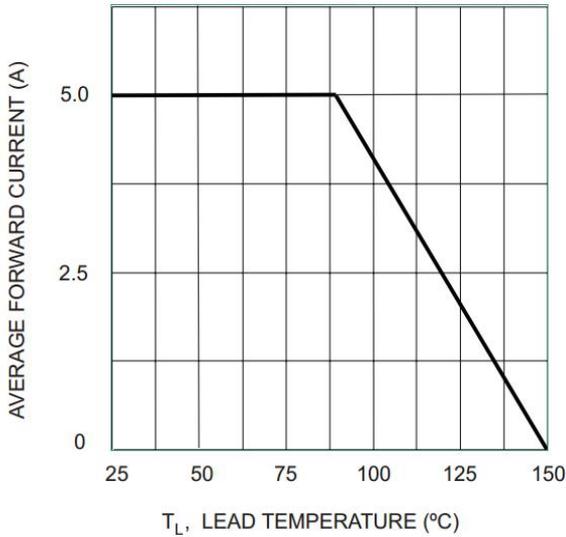


Fig. 2 Typ. Forward Characteristics

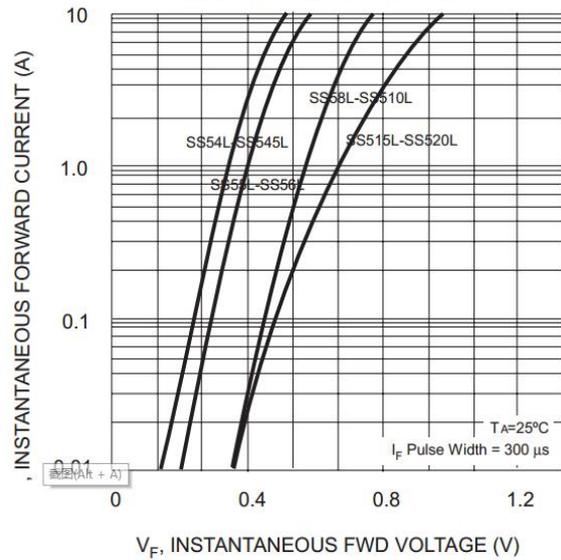


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

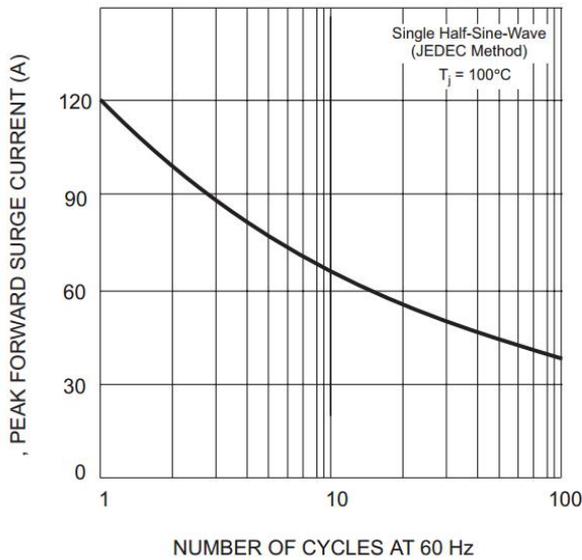


FIG.4 TYPICAL REVERSE CHARACTERISTIC

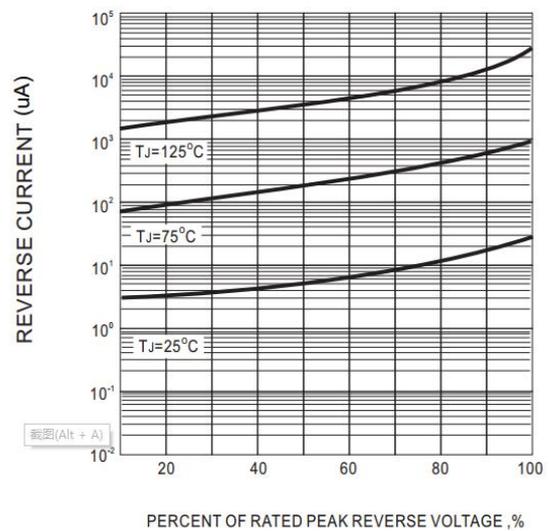


FIG.5 MOUNTING PAD LAYOUT

