

# SK54L THRU SK520L

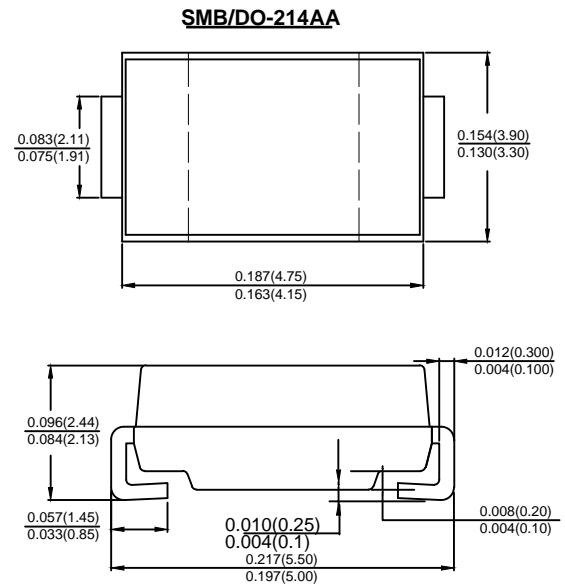
## 5.0 AMP SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

### Features

- High current capacity, low  $V_f$
- Low Power Loss, High Efficiency
- Ideally Suited for Automatic Assembly
- For Use in Low Voltage Application
- Plastic Case Material has UL Flammability Classification Rating 94V-0

### Mechanical Data

- Case: Molded plastic SMB
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Making: Type Number



Dimensions in inches and (millimeters)

### Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

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

For capacitive load derate current by 20%

Type Number	SYMBOL	SK 54L	SK 545L	SK 55L	SK 56L	SK 58L	SK 510L	SK 515L	SK 520L	Unit
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	40	45	50	60	80	100	150	200	V
Maximum RMS Voltage	$V_{RMS}$	28	32	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	$V_{DC}$	40	45	50	60	80	100	150	200	V
Average Rectified Output Current @ $T_L = 90^\circ C$	$I_{F(AV)}$	5.0								A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	120								A
Forward Voltage @ $I_F = 5.0A$ (Note 1)	$V_{FM}$	0.45			0.5	0.75		0.85		V
Peak Reverse Current @ $T_A = 25^\circ C$	$I_R$	0.2				0.05				mA
At Rated DC Blocking Voltage @ $T_A = 100^\circ C$		10				5				mA
$I^2t$ Rating for fusing ( $t < 8.3ms$ )	$I^2t$	59.76								A <sup>2</sup> s
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

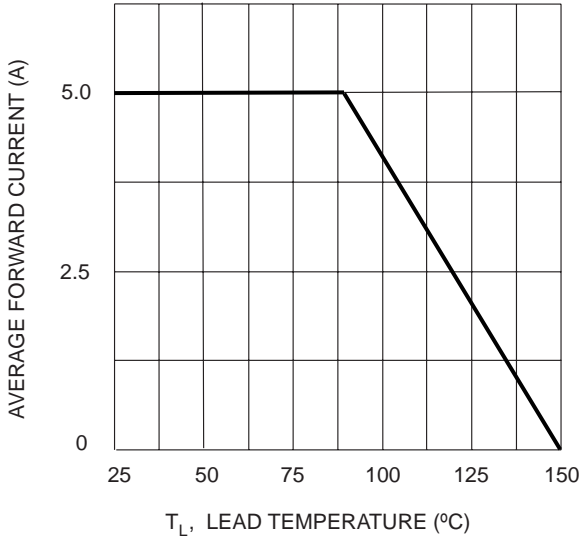


Fig. 2 Typ. Forward Characteristics

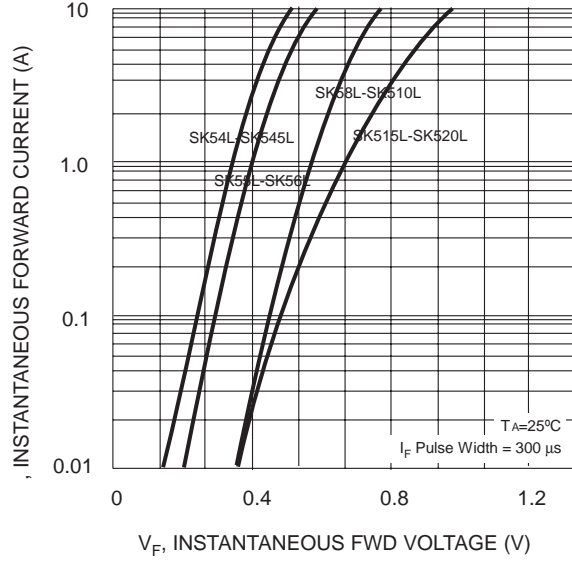


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

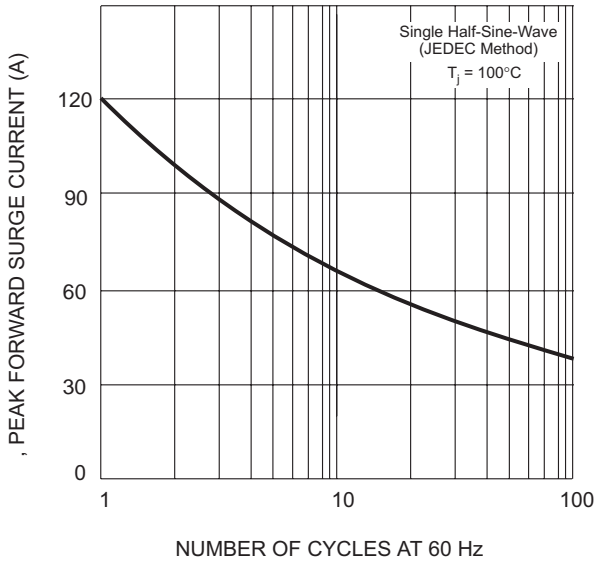


FIG.4 TYPICAL REVERSE CHARACTERISTIC

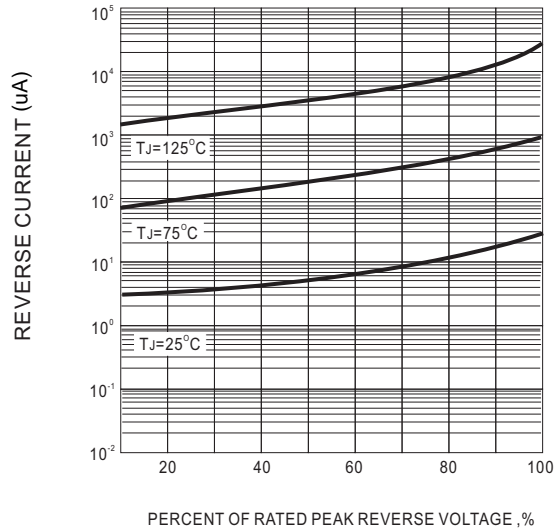
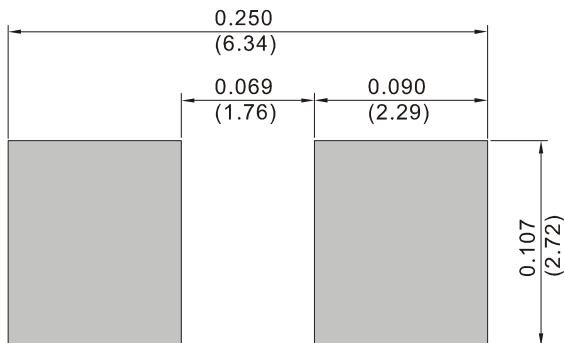


FIG.5 MOUNTING PAD LAYOUT



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