



YEA SHIN TECHNOLOGY CO., LTD

SK54L THRU SK520L

LOW VF SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER



VOLTAGE - 40 to 200 Volts CURRENT - 5.0 Amperes

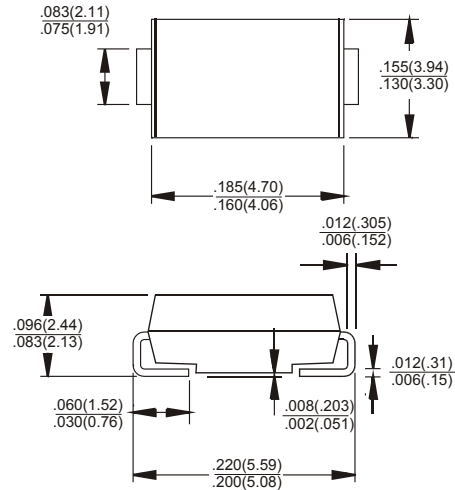
FEATURE

- 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
- Marking: Type Number

SMB/DO-214AA Unit: inch(mm)



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%.

PARAMETER	SYMBOL	SK54L	SK545L	SK55L	SK56L	SK58L	SK510L	SK515L	SK520L	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 @ $T_L=90^\circ\text{C}$	$I_{F(AV)}$	5.0								A
Peak Forward Surge Current 8.3ms Single Half Sine-Wave Superimposed on Raged Load (JEDEC method)	I_{FSM}	120								A
Forward Voltage $I_F=5.0A$ (Note 1)	V_F	0.45		0.50		0.75		0.85		V
Maximum DC Reverse Current at $T_A=25^\circ\text{C}$	I_R	0.2				0.05				mA
at Raged DC Blocking Voltage $T_A=100^\circ\text{C}$		10				5				
I^2t Raging for Fusing ($t<8.3ms$)	I^2t	59.76								A^2S
Typical Junction Capacitance (Note2)	C_J	250								pF
Typical Thermal Resistance (Note3)	$R_{\theta JA}$	75								$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150								$^\circ\text{C}$

Note: 1. Pulse Test with $PW=300\mu s$, 1% Duty Cycle.
 2. Measured at 1.0MHz and Applied reverse Voltage of 4.0 Vdc.
 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.

DEVICE CHARACTERISTICS

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Fig. 1 Forward Current Derating Curve

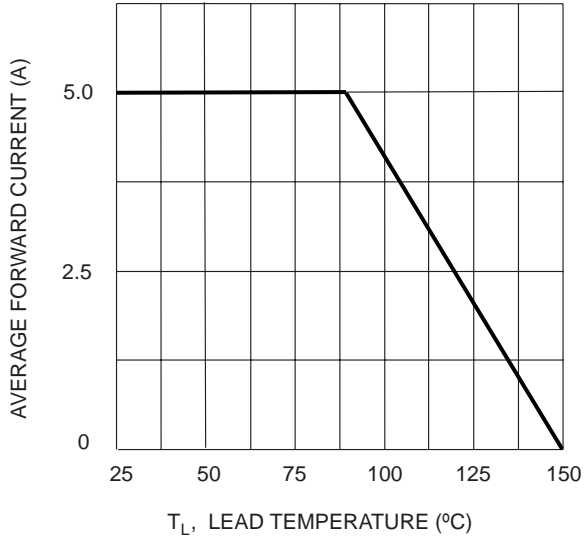


Fig. 2 Typ. Forward Characteristics

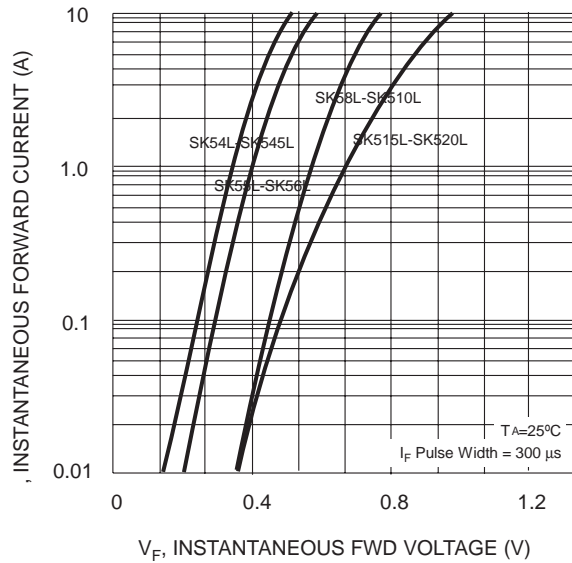


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

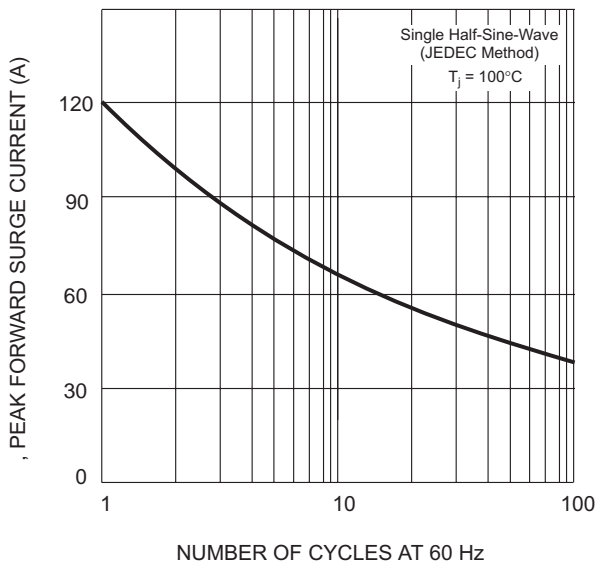


FIG.4 TYPICAL REVERSE CHARACTERISTIC

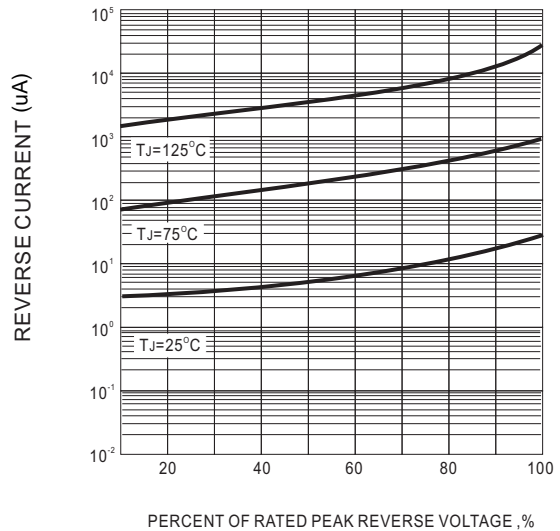


FIG.5 MOUNTING PAD LAYOUT

