YEA SHIN TECHNOLOGY CO., LTD SK54L-A THRU SK520L-A

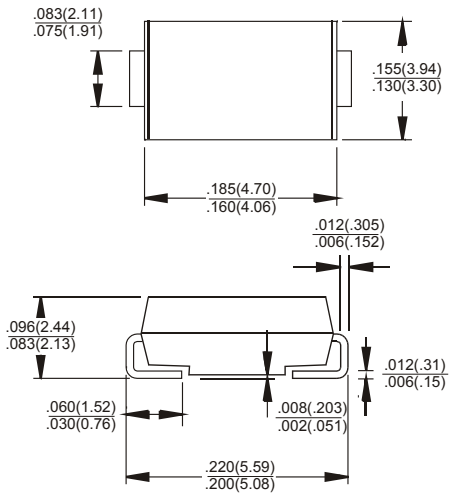
LOW VF SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

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
- AEC-Q101 qualified

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



MECHAINCAL DATA

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

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25℃ 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℃	$I_{F(AV)}$	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℃	I_R	0.2				0.05				mA
at Raged DC Blocking Voltage T_A=100℃		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								℃/W
Operating and Storage Temperature Range	T_J, T_{STG}	-55 to +150								℃

Note: 1.Pulse Test with PW=300us, 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

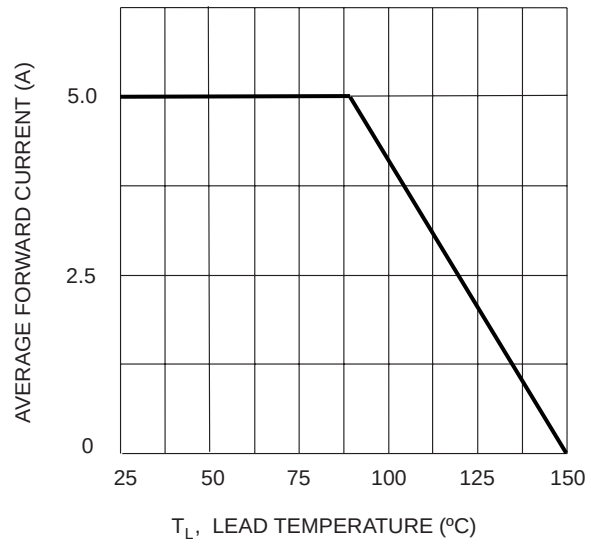

Fig. 2 Typ. Forward Characteristics

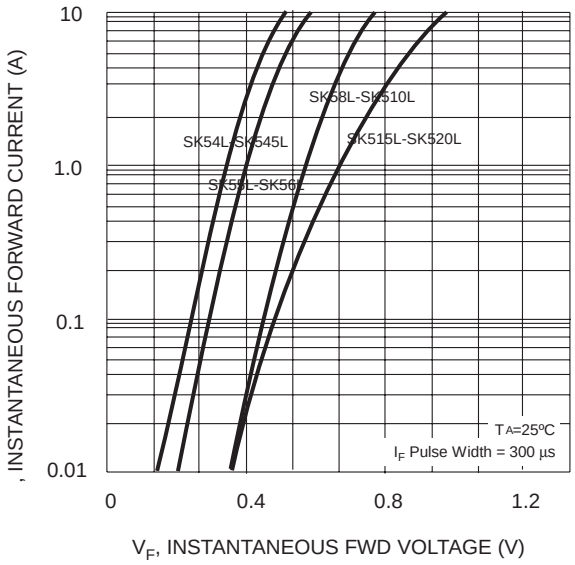

Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

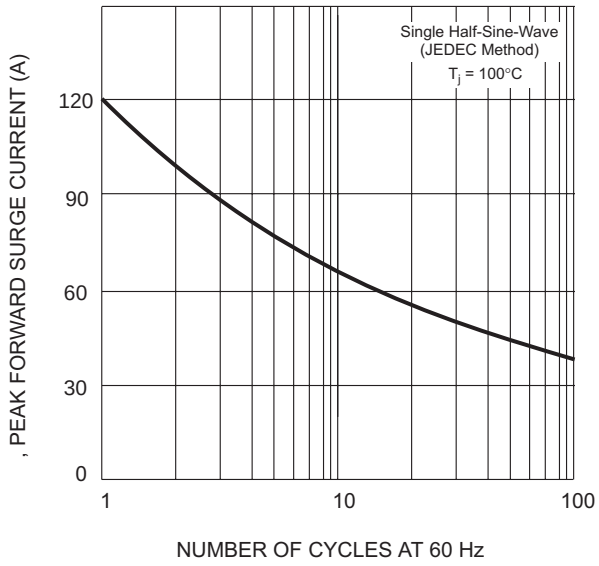

FIG.4TYPICALREVERSE CHRACTERISTIC

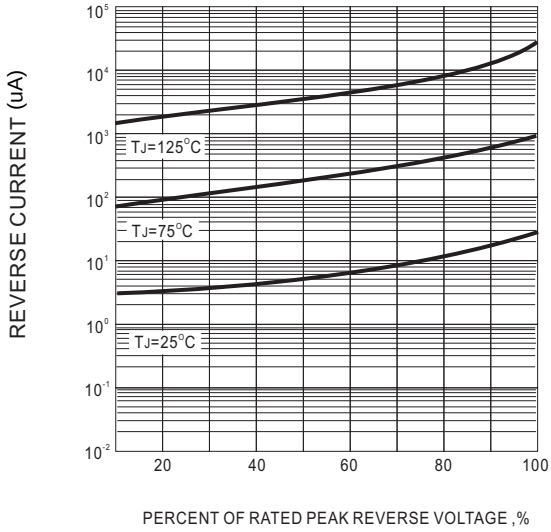

FIG.5 MOUNTING PAD LAYOUT