



# SK52~SK56

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

**VOLTAGE** 20 to 60 Volt **CURRENT** 5 Ampere

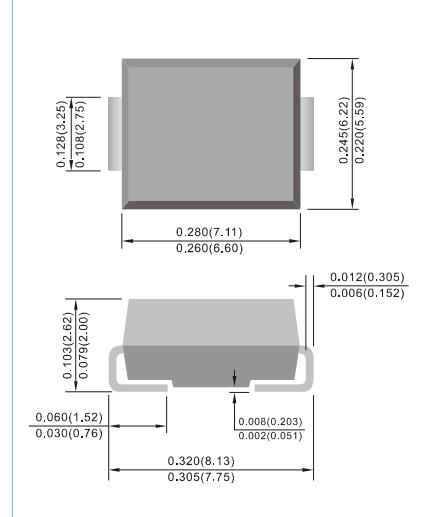
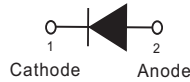
**SMC / DO-214AB** Unit : inch(mm)

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications in order to optimize board space
- Low power loss, high efficiency
- High surge capacity
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard

### MECHANICAL DATA

- Case: JEDEC DO-214AB molded plastic
- Terminals: Solder plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Standard packaging: 16mm tape (EIA-481)
- Weight: 0.0082 ounces, 0.2325 grams



## MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.  
Resistive or inductive load.

PARAMETER	SYMBOL	SK52	SK53	SK54	SK55	SK56	UNITS
Maximum Recurrent Peak Reverse Voltage	$V_{RRM}$	20	30	40	50	60	V
Maximum RMS Voltage	$V_{RMS}$	14	21	28	35	42	V
Maximum DC Blocking Voltage	$V_{DC}$	20	30	40	50	60	V
Maximum Average Forward Rectified Current at $T_L = 75^\circ\text{C}$	$I_{F(AV)}$	5					A
Peak Forward Surge Current : 8.3ms single half sine-wave superimposed on rated load	$I_{FSM}$	100					A
Maximum Forward Voltage at 5A (Note 1)	$V_F$	0.55			0.75		V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_J = 25^\circ\text{C}$ $T_J = 100^\circ\text{C}$	$I_R$	0.2 20			0.1 20		mA
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$ $R_{\theta JA}$	17 55					$^\circ\text{C} / \text{W}$
Operating Junction Temperature Range	$T_J$	-55 to +125		-55 to +150			$^\circ\text{C}$
Storage Temperature Range	$T_{STG}$	-55 to +150					$^\circ\text{C}$

**NOTES :**

1. Pulse Test with  $PW = 300\mu\text{sec}$ , 1% Duty Cycle.
2. Mounted on P.C. Board with  $14\text{mm}^2$  (0.013mm thick) copper pad areas.



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## RATING AND CHARACTERISTIC CURVES

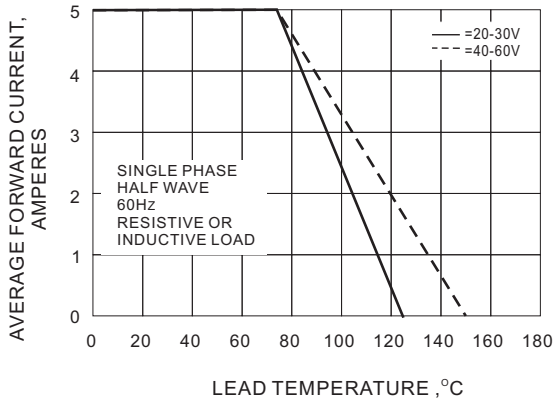


Fig.1 FORWARD CURRENT DERATING CURVE

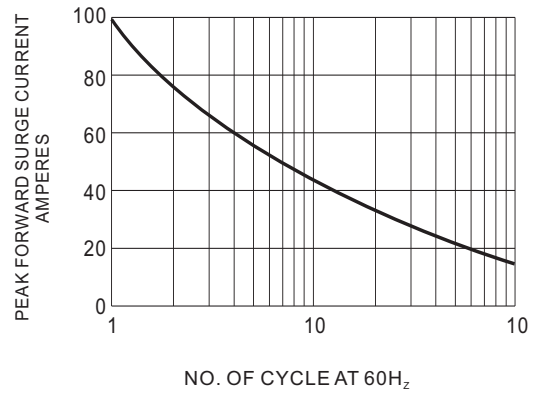


Fig.2 MAXIMUM NON-REPETITIVE SURGE CURRENT

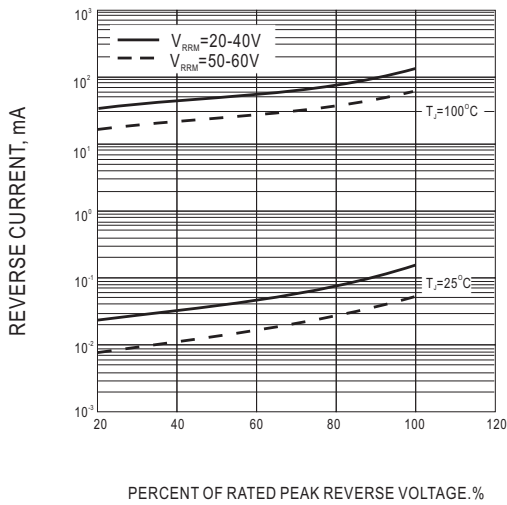


Fig.3 TYPICAL REVERSE CHARACTERISTIC

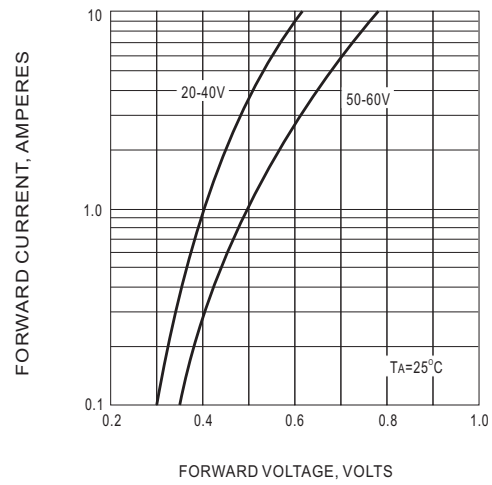


Fig.4 TYPICAL INSTANTANEOUS FORWARD CHARACTERISTIC

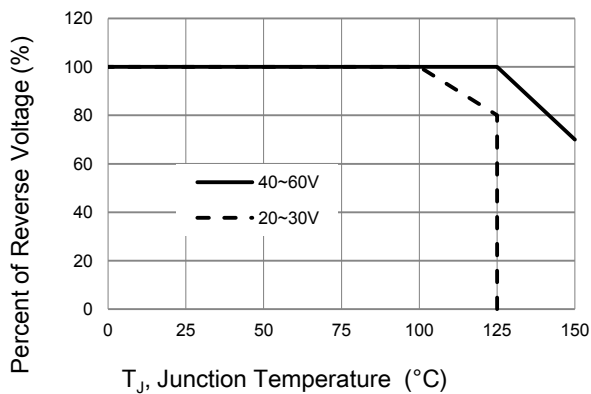


Fig.5 Operating Temperature Derating Curve

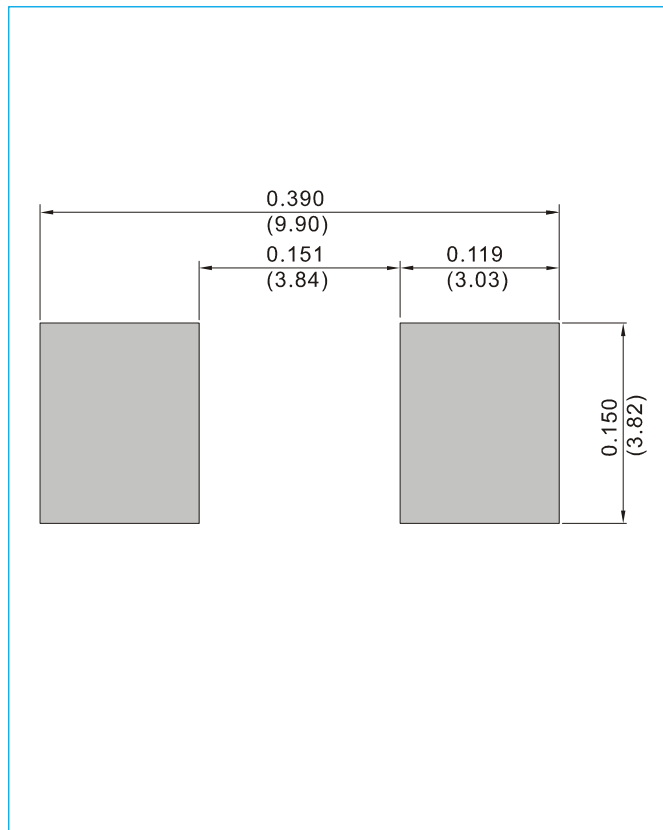


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### MOUNTING PAD LAYOUT

**SMC / DO-214AB**

Unit : inch(mm)



### ORDER INFORMATION

- Packing information
  - T/R - 3K per 13" plastic Reel
  - T/R - 0.8K per 7" plastic Reel



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### Part No\_packing code\_Version

SK52\_R1\_00001

SK52\_R2\_00001

For example :

**RB500V-40\_R2\_00001**



Packing Code <b>XX</b>				Version Code <b>XXXXXX</b>		
Packing type	1 <sup>st</sup> Code	Packing size code	2 <sup>nd</sup> Code	HF or RoHS	1 <sup>st</sup> Code	2 <sup>nd</sup> ~5 <sup>th</sup> Code
Tape and Ammunition Box (T/B)	A	N/A	0	HF	0	serial number
Tape and Reel (T/R)	R	7"	1	RoHS	1	serial number
Bulk Packing (B/P)	B	13"	2			
Tube Packing (T/P)	T	26mm	X			
Tape and Reel (Right Oriented) (TRR)	S	52mm	Y			
Tape and Reel (Left Oriented) (TRL)	L	PANASERT T/B CATHODE UP (PBCU)	U			
FORMING	F	PANASERT T/B CATHODE DOWN (PBCD)	D			



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