



# SK52BH THRU SK520BH

## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

**REVERSE VOLTAGE:** 20 to 200 VOLTS

**FORWARD CURRENT:** 5.0 AMPERE

### FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-O
- For surface mounted applications
- High current capacity
- Built-in strain relief
- Low profile package
- Metal to silicon rectifier, majority carrier conduction
- High surge capacity
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Suffix " H " indicated Halogen-free part, ex.SK52BH

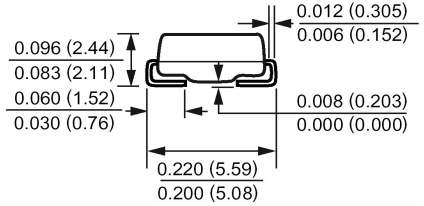
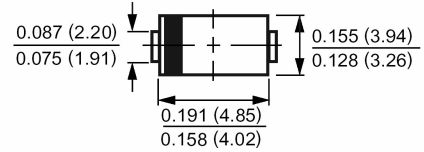
### MECHANICAL DATA

Case : Molded plastic, DO-214AA(SMB)

Terminals : Solder plated, solderable per MIL-STD-750, method 2026 guaranteed

Polarity : Color band denotes cathode end

### DO-214AA(SMB)



Dimensions in inches and (millimeters)

### 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	SK52BH	SK54BH	SK55BH	SK56BH	SK58BH	SK510BH	SK515BH	SK520BH	Units	
		SK52	SK54	SK55	SK56	SK58	SK510	SK515	SK520		
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	20	40	50	60	80	100	150	200	Volts	
Maximum RMS Voltage	$V_{RMS}$	14	28	35	42	56	70	105	140	Volts	
Maximum DC Blocking Voltage	$V_{DC}$	20	40	50	60	80	100	150	200	Volts	
Maximum Average Forward Rectified Current at $T_L$ (See Fig. 1)	$I_{(AV)}$	5.0								Amp	
Peak Forward Surge Current, 8.3ms single half-sine-wave superimposed on rated load (JEDEC method)	$I_{FSM}$	100.0								Amp	
Maximum Forward Voltage at 5.0A (Note 1)	$V_F$	0.55	0.70		0.85		0.95		Volts		
Maximum Reverse Current at $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage $T_A=100^\circ\text{C}$	$I_R$	0.5			0.2		10.0			mAmp	
Typical Thermal Resistance from Junction to Lead (Note 2)	$R_{\theta JL}$	25								°C/W	
Operating Junction Temperature Range	$T_J$	-55 to +125				-55 to +150				°C	
Storage Temperature Range	$T_{stg}$	-55 to +150									°C

#### NOTES:

1- Pulse test: 300µs pulse width, 1% duty cycle

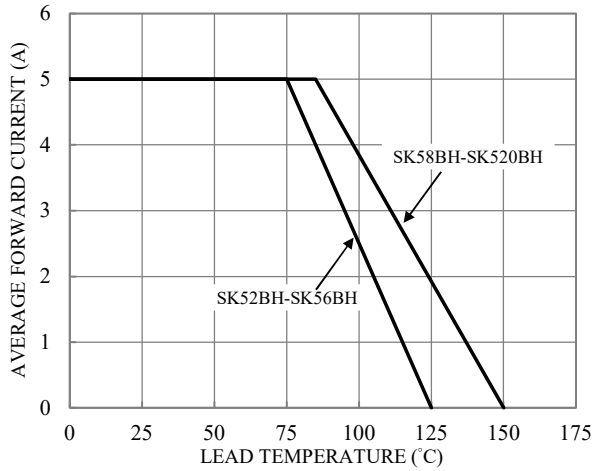
2- Mounted on P.C.B. with 0.28×0.28" (7.0×7.0mm) copper pad areas.



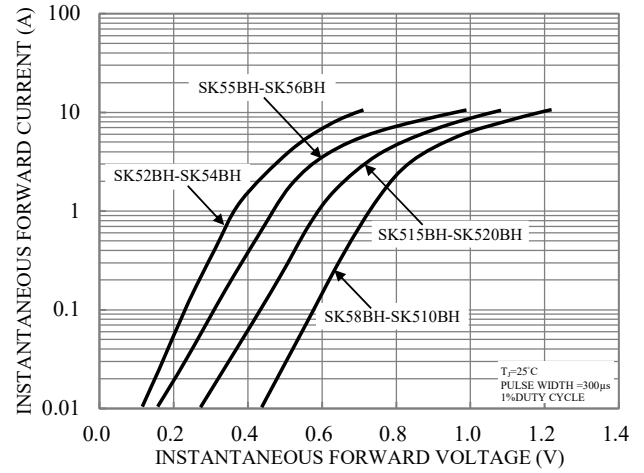
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## SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

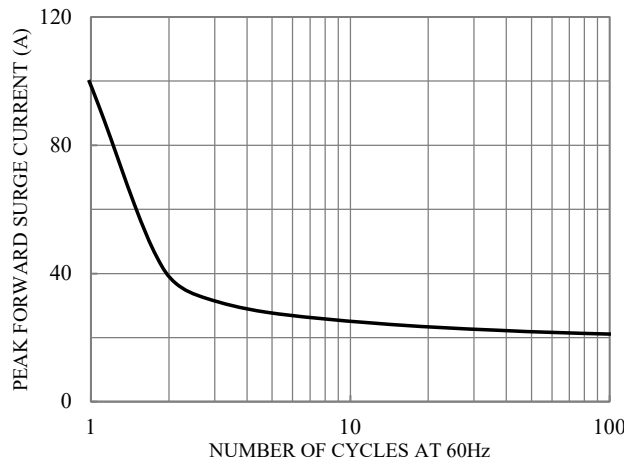
### RATINGS AND CHARACTERISTIC CURVES



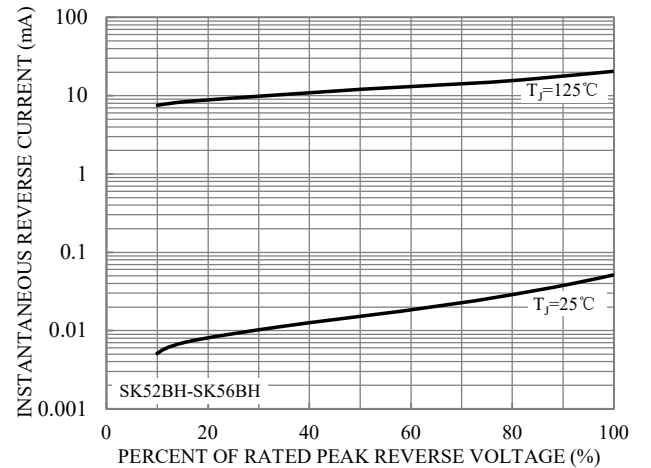
**Fig.1-FORWARD CURRENT DERATING CURVE**



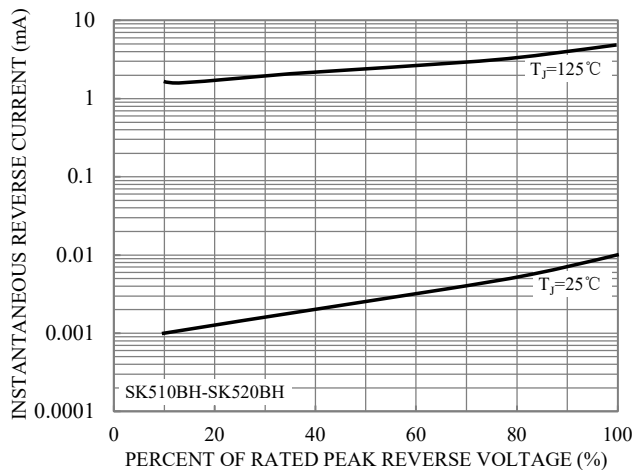
**Fig.2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**Fig.3-MAXIMUM NON-REPETITIVE SURGE CURRENT**



**Fig.4-TYPICAL REVERSE CHARACTERISTICS**



**Fig.5-TYPICAL REVERSE CHARACTERISTICS**