

SK52C THRU SK520C

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER



康比電子
HORNBY ELECTRONIC

REVERSE VOLTAGE: 20 to 200 VOLTS

FORWARD CURRENT: 5.0 AMPERE

FEATURES

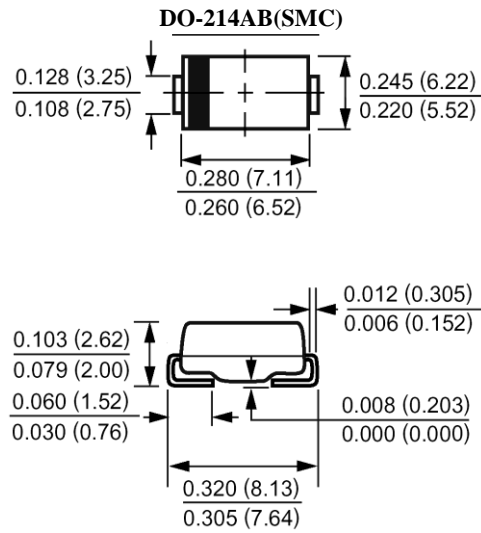
- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- For surface mounted applications
- High current capacity
- Built-in strain relief
- Low profile package
- Metal to silicon rectifier, majority carrier conduction
- High surge capacity
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling, and polarity protection applications
- Suffix " H " indicated Halogen-free part, ex.SK52CH

MECHANICAL DATA

Case : Molded plastic, DO-214AB(SMC)

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

Polarity : Color band denotes cathode end



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	SK52C	SK53C	SK54C	SK55C	SK56C	SK58C	SK510C	SK515C	SK520C	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	Volts
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	71	105	140	Volts
Maximum DC Blocking Voltage	V_{DC}	20	30	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			0.75		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									mAmp
Typical Thermal Resistance (Note 2)	$R_{\theta JA}$	55.0									°C/W
	$R_{\theta JL}$	17.0									
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- P.C.B. mounted with 0.55 x 0.55" (14 x 14mm) Copper Pad Areas

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RATINGS AND CHARACTERISTIC CURVES

FIG.1 FORWARD CURRENT DERATING CURVE

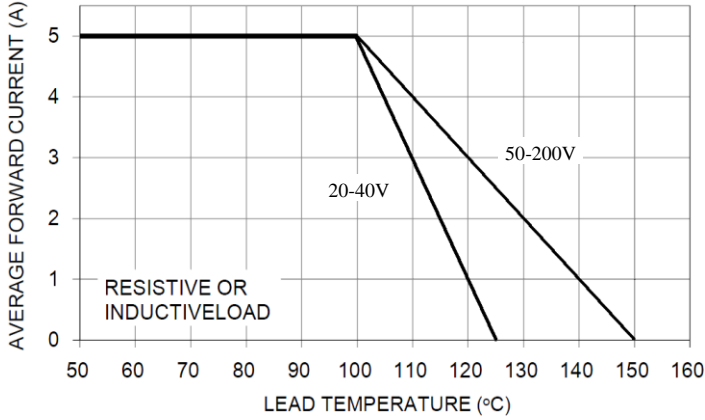


FIG. 2 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

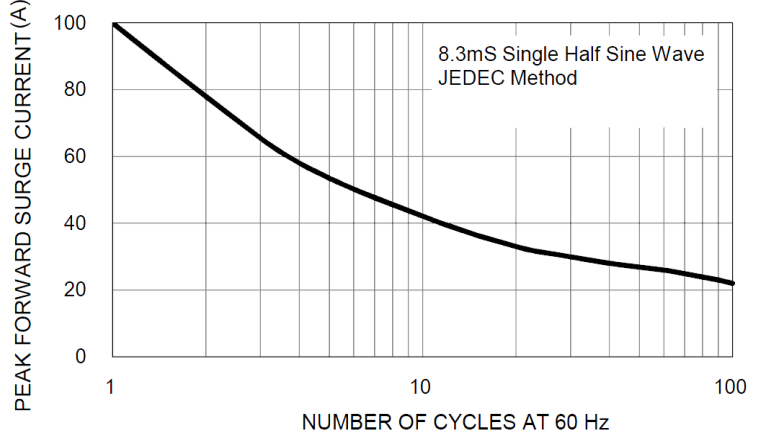


FIG. 3- TYPICAL FORWARD CHARACTERISTICS

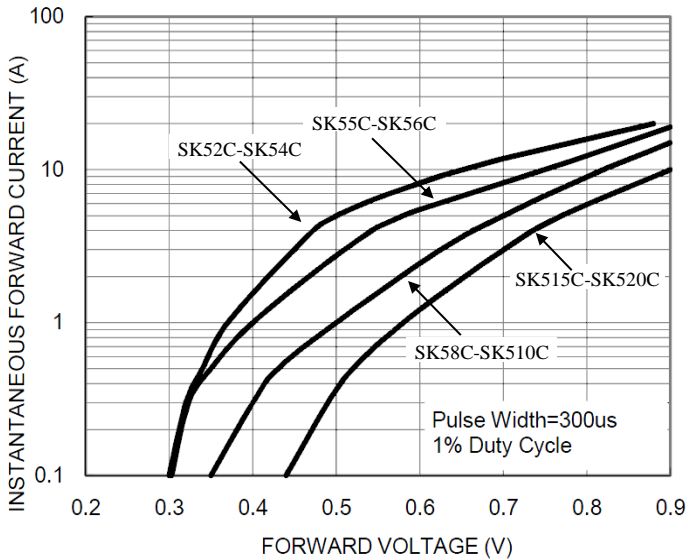


FIG. 4- TYPICAL REVERSE CHARACTERISTICS

