

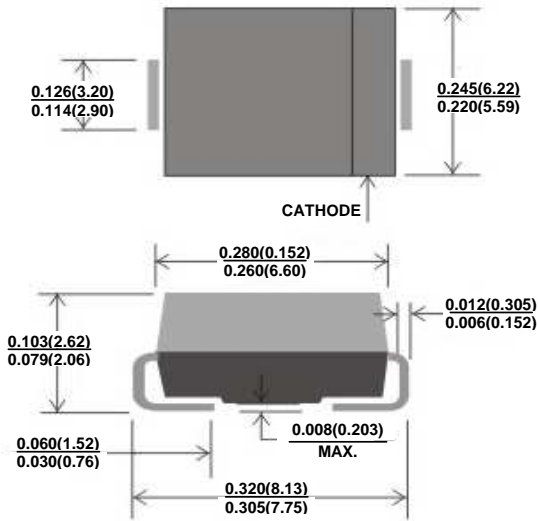


SK52C THRU SK5200C

SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 200 Volts Forward Current - 5.0 Ampere

DO-214AB



Dimensions in inches and (millimeters)

FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0.
- ◆ Metal silicon junction, majority carrier conduction.
- ◆ Low power loss, high efficiency.
- ◆ High forward surge current capability.
- ◆ High temperature soldering guaranteed:
250° C/10 seconds, 0.375"(9.5mm) lead length, 5 lbs. (2.3kg) tension

MECHANICAL DATA

Case: JEDEC DO-214AB/SMC molded plastic body

Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.012 ounce, 0.33 grams

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 current derate by 20%.

PARAMETER	SYMBOLS	SK 52C	SK 53C	SK 54C	SK 55C	SK 56C	SK 58C	SK 5100C	SK 5150C	SK 5200C	UNITS	
Maximum repetitive 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	70	105	140	Volts	
Maximum DC blocking voltage	V_R	20	30	40	50	60	80	100	150	200	Volts	
Maximum average forward rectified current 0.375"(9.5mm) lead length(see fig.1)	$I_{F(AV)}$	5.0									Amp	
Peak forward surge current at 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150									Amps	
Maximum Forward Voltage at $I_F=5.0A$	V_F	0.50			0.75		0.85		0.92		Volts	
Maximum DC reverse current at rated DC blocking voltage	I_R	$T_A = 25^\circ C$		0.5							mA	
		$T_A = 100^\circ C$		20.0			10.0					
Typical Junction Capacitance (NOTE 1)	C_J	200									pF	
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	50									°C/W	
Operating Junction Temperature Range	T_J	-65 to +125					-65 to +150					°C
Storage Temperature Range	T_{STG}	-65 to +150									°C	

- Note:**
1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
 2. Mounted with minimum recommended padsize, PCBBoard FR4.
 3. $T_J=25^\circ C$ unless otherwise specified.



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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

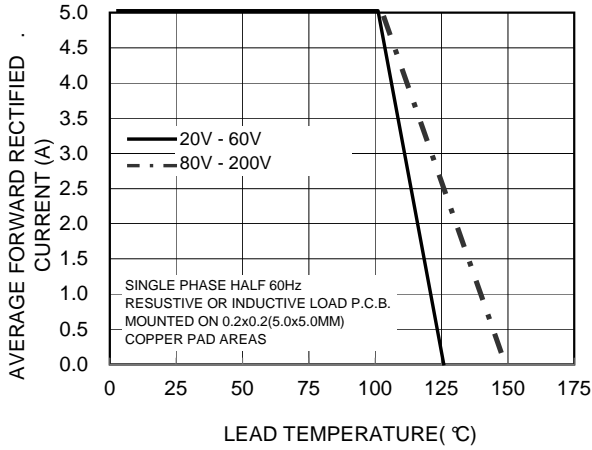


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

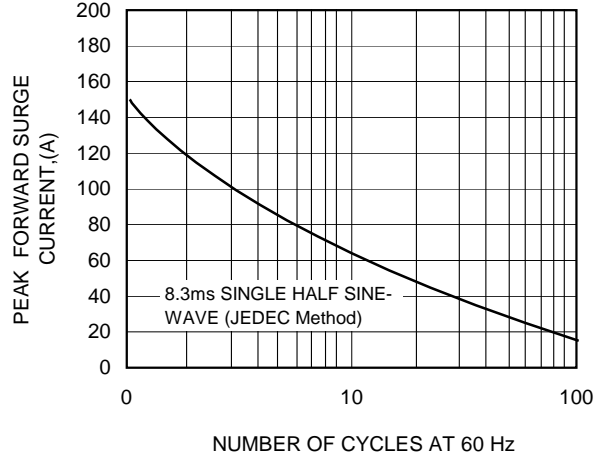


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

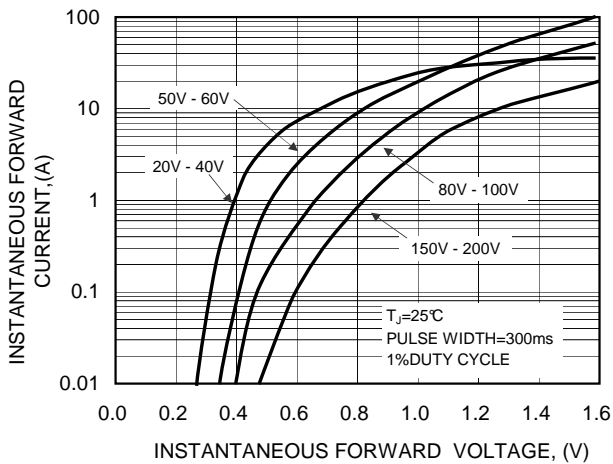


FIG. 4-TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

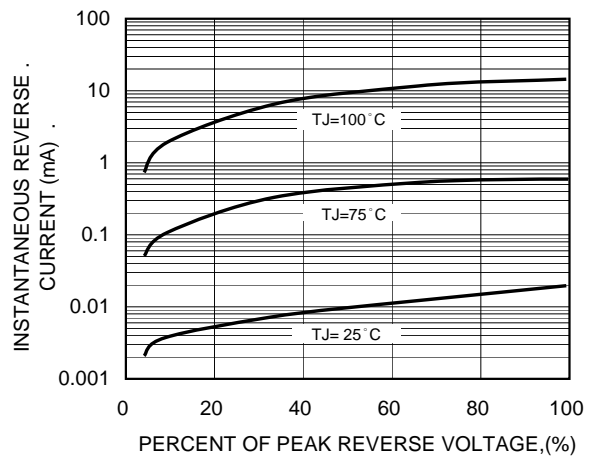


FIG. 5-TYPICAL JUNCTION CAPACITANCE

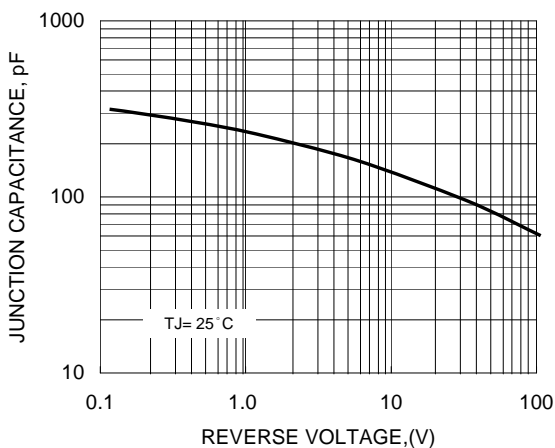


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

