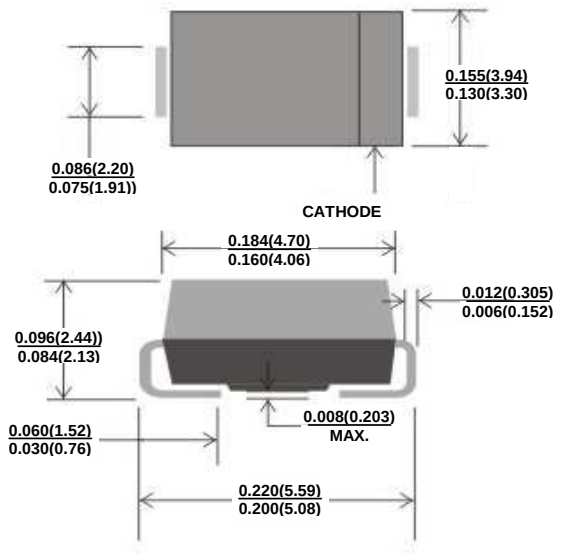
SK52 THRU SK5200

SCHOTTKY BARRIER RECTIFIER

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

DO-214AA



Dimensions in inches and (millimeters)

FEATURES

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0.
- For surface mounted applications
- Metal silicon junction,majority carrier conduction.
- Low power loss,high efficiency.
- Built-in strain relief,ideal for automated placement
- High forward surge current capability.
- High temperature soldering guaranteed: 250 ^{o}C/10 seconds

MECHANICAL DATA

Case: JEDEC DO-214AA/SMB molded plastic body
Terminals: Plated axial leads, solderable per MIL-STD-750, Method 2026
Polarity: Color band denotes cathode end
Mounting Position: Any
Weight: 0.005 ounce, 0.138 grams

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25℃ ambient temperature unless otherwis e specified.
Single phase half-wave 60Hz,resistive or inductive load,for capacitive load current derate by 20%.

PARAMETER	*SYMBOLS*	*SK52*	*SK53*	*SK54*	*SK55*	*SK56*	*SK58*	*SK 5100*	*SK 5150*	*SK 5200*	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 IF=5.0A	V_F	0.50			0.70		0.85		0.92		Volts
Maximum DC reverse current T_A = 25 ℃	I_R	0.5									mA
at rated DC blocking voltage T_A=100℃		20.0					10.0				
Typical Junction Capacitance (NOTE 1)	C_J	200									pF
Typical Thermal Resistance (NOTE 2)	$R_{\theta JA}$	50									℃/W
Operating Junction Temperature Range	T_J	-65 to +125					-65 to +150				℃
Storage Temperature Range	T_{STG}	-65 to +150									℃

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Mounted with minimum recommended padsize，PCBoard FR4.
3. T_J=25℃ unless otherwise specified.

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RATINGS AND CHARACTERISTIC CURVES

FIG. 1- FORWARD CURRENT DERATING CURVE

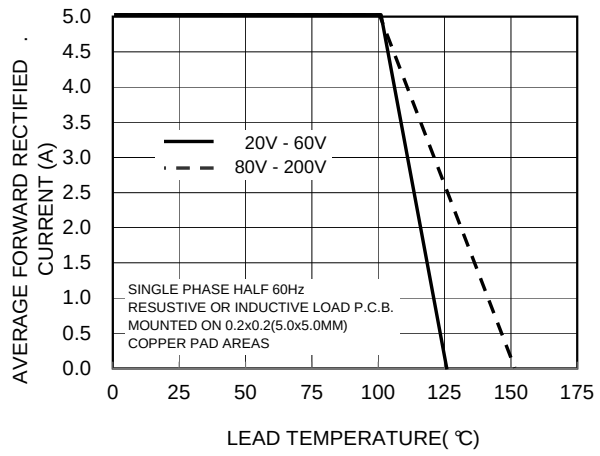

FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

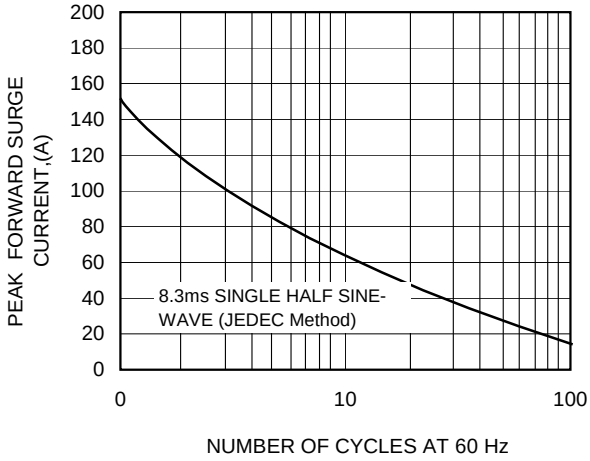

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

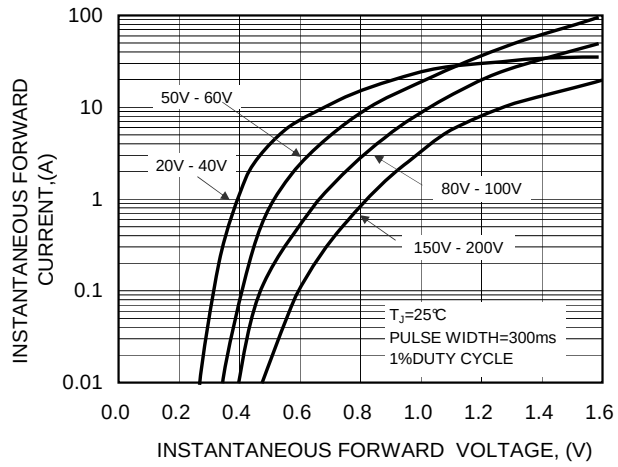

FIG. 4-TYPICAL INSTANTANEOUS REVERSE CHARACTERISTICS

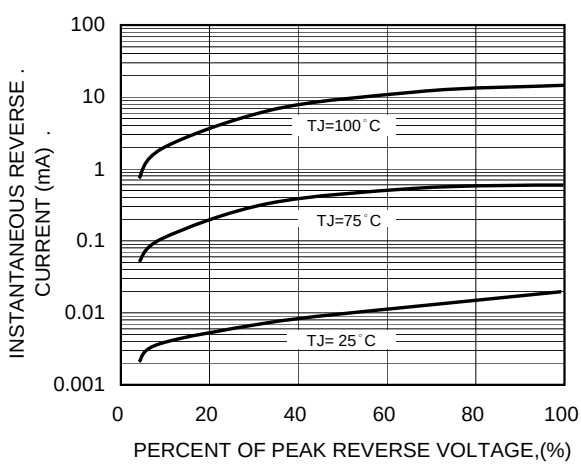

FIG. 5-TYPICAL JUNCTION CAPACITANCE

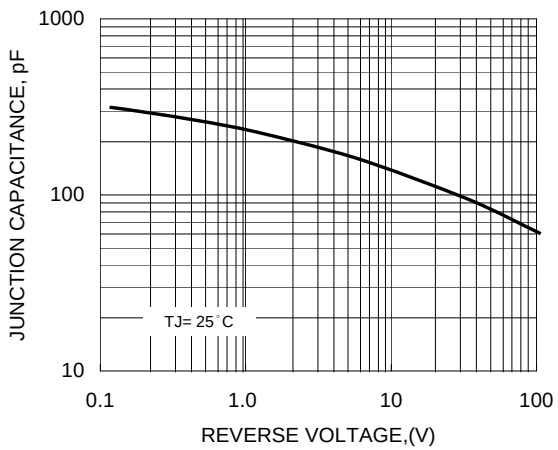

FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE