DEC

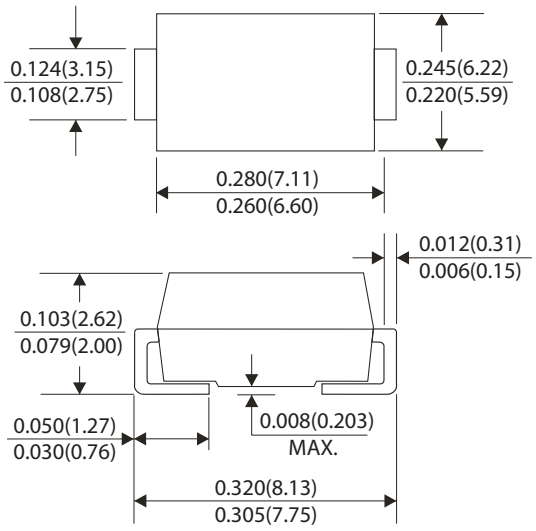
SK52 THRU SK510

CURRENT 5.0Amperes
VOLTAGE 20 to 100 Volts

Features

- Plastic Package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- For surface mount applications
- Guard ring for overvoltage protection
- Low power loss, high efficiency
- High current capability, Low forward voltage drop
- High surge capability
- For use in low voltage, high frequency inverters, free wheeling, and polarity protection applications
- High temperature soldering guaranteed : 250℃/10 seconds at terminals

DO-214AB (SMC)



Dimensions in inches and (millimeters)

Mechanical Data

- Case : JEDEC SMC(DO-214AB) molded plastic body
- Terminals : Solder Plate, solderable per MIL-STD-750, Method 2026
- Polarity : Color band denotes cathode end
- Weight : 0.007 ounce, 0.25 gram

Maximum Ratings and Electrical Characteristics

(Ratings at 25℃ ambient temperature unless otherwise specified, single phase, half wave, resistive or inductive load. For capacitive load, derate by 20%)

		Symbols	SK52	SK53	SK54	SK55	SK56	SK58	SK59	SK510	Units
Maximum repetitive peak reverse voltage		V_{RRM}	20	30	40	50	60	80	90	100	Volts
Maximum RMS voltage		V_{RMS}	14	21	28	35	42	56	63	70	Volts
Maximum DC blocking voltage		V_{DC}	20	30	40	50	60	80	90	100	Volts
Maximum average forward rectified current 0.375"(9.5mm) lead length(see Fig. 1)		$I_{(AV)}$	5.0								Amps
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method)		I_{FSM}	120								Amps
Maximum instantaneous forward voltage at 5.0A (Note 1)		V_F	0.55			0.70		0.85			Volts
Maximum instantaneous reverse current at rated DC blocking voltage (Note1)	T_A=25℃	I_R	3.0								mA
	T_A=100℃		50								
Typical thermal resistance (Note 2)		$R\Theta_{JA}$	10								℃/W
Operating junction temperature range		T_J	-50 to +125								℃
Storage temperature range		T_{STG}	-65 to +150								℃

Notes:
(1) Pulse test: 300μS pulse width, 1% duty cycle
(2) Thermal resistance junction to ambient

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RATINGS AND CHARACTERISTIC CURVES SK52 THRU SK510

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

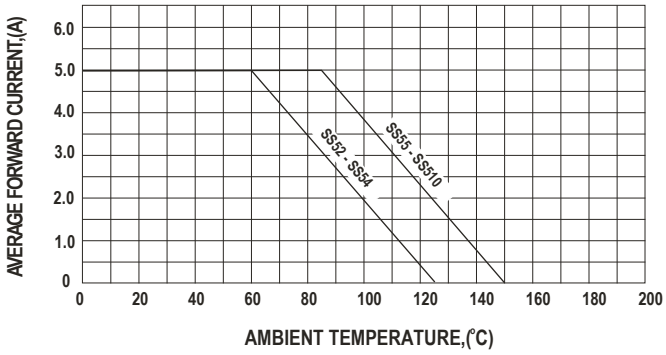

FIG.2-TYPICAL FORWARDCHARACTERISTICS

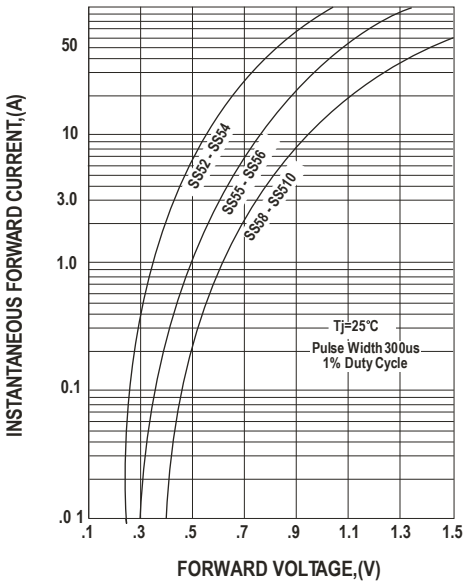

FIG.3-MAXIMUM NON-REPETITIVE FORWARDSURGE CURRENT

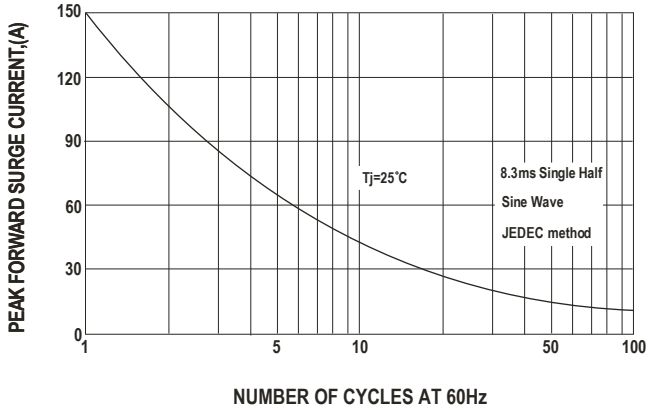

FIG.4-TYPICAL JUNCTION CAPACITANCE

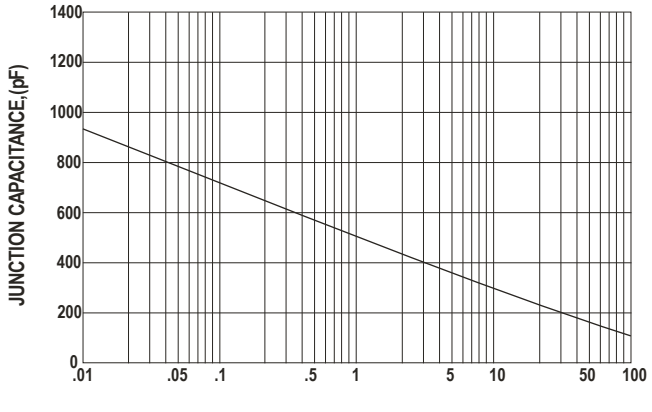

FIG.5 - TYPICAL REVERSECHARACTERISTICS