

### SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

REVERSE VOLTAGE: 20 --- 60 V  
CURRENT: 5.0 A

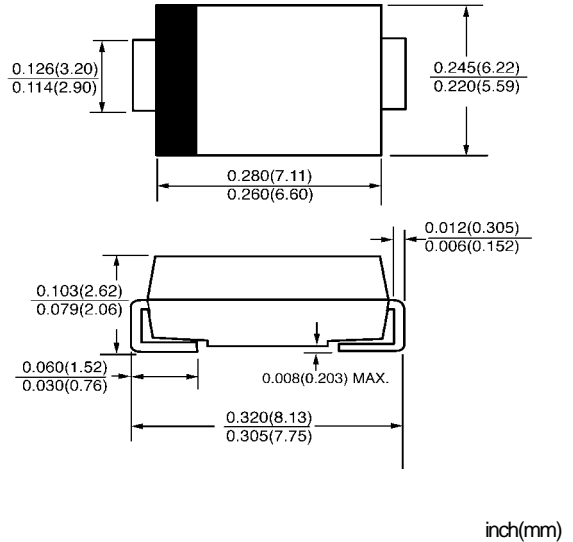
#### FEATURES

- Plastic package has Underwriters Laborator Flammability Classification 94V-0
- For surface mounted applications
- Low profile package
- Built-in strain relief
- Metal silicon junction, majority carrier conduction
- High surge capability
- High current capability, low forward voltage drop
- Low power loss, high efficiency
- For use in low voltage high frequency inverters, free wheeling and polarity protection applications
- Guardring for overvoltage protection
- High temperature soldering guaranteed: 250°C/10 seconds at terminals

#### MECHANICAL DATA

- Case: JEDEC DO-214AB, molded plastic over passivated chip
- Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.007 ounces, 0.21 gram

#### DO - 214AB(SMC)



#### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

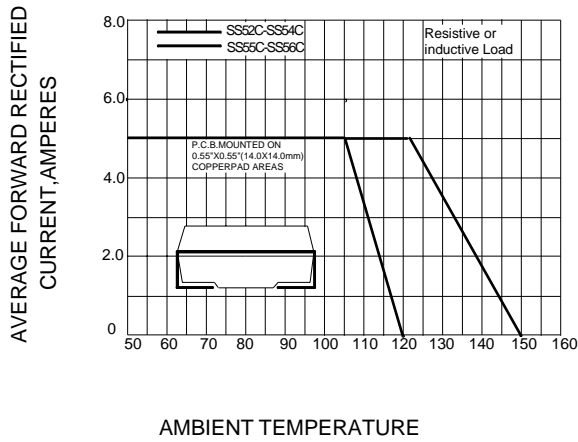
Ratings at 25 ambient temperature unless otherwise specified

		SS52C	SS53C	SS54C	SS55C	SS56C	UNITS
Device marking code		S2C	S3C	S4C	S5C	S6C	
Maximum recurrent peak reverse voltage	$V_{RRM}$	20	30	40	50	60	V
Maximum RMS voltage	$V_{RWS}$	14	21	28	35	42	V
Maximum DC blocking voltage	$V_{DC}$	20	30	40	50	60	V
Maximum average forward rectified current at $T_L$ (SEE FIG.1) (NOTE 2)	$I_{(AV)}$	5.0					A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	175					A
Maximum instantaneous forward voltage at 5.0A (NOTE.1)	$V_F$	0.55			0.70		V
Maximum DC reverse current @ $T_A=25$ at rated DC blocking voltage (NOTE1) @ $T_A=100$	$I_R$	0.5					mA
		20			10		
Typical thermal resistance (NOTE2)	$R_{JA}$	55					/W
	$R_{JL}$	17					
Operating junction and storage temperature range	$T_{STG}$	-65--- +150					
Storage temperature range	$T_J$	-65--- +150			-65--- +150		

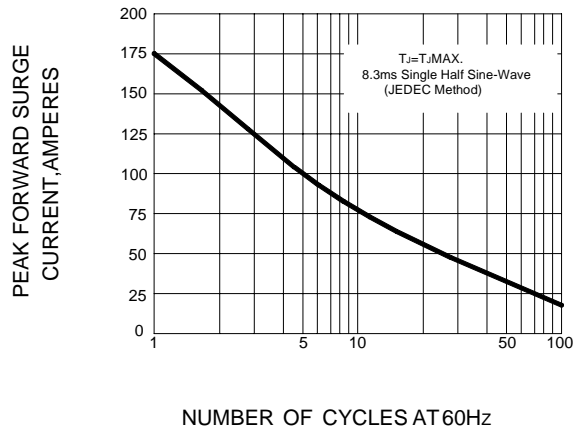
NOTE: 1. Pulse test: 300  $\mu$ S pulse width, 1% duty cycle  
2. P.C.B. mounted with 0.55"X0.55" (14.0X14.0mm<sup>2</sup>) copper pad areas

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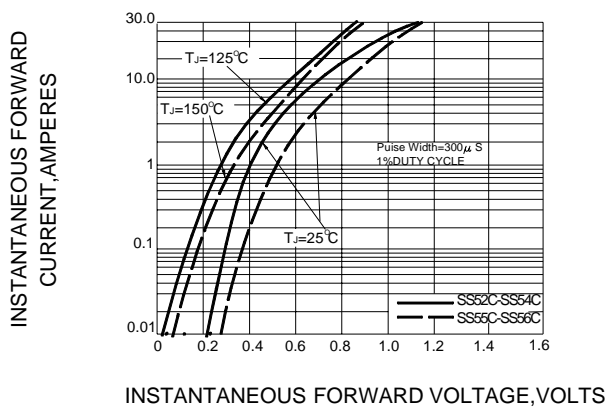
**FIG.1 – FORWARD DERATING CURVE**



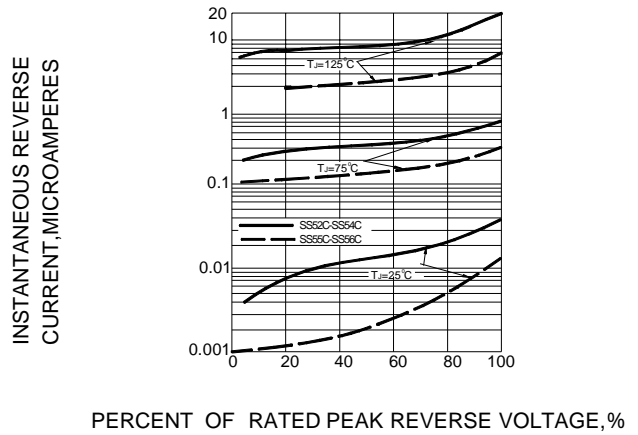
**FIG.2- PEAK FORWARD SURGE CURRENT**



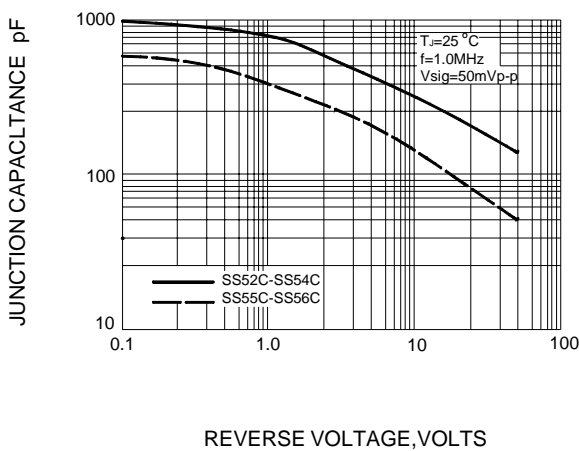
**FIG.3 – TYPICAL FORWARD CHARACTERISTICS**



**FIG.4 – TYPICAL REVERSE CHARACTERISTICS**



**FIG.5-TYPICAL JUNCTION CAPACITANCE**



**FIG.6- TYPICAL TRANSIENT THERMAL IMPEDANCE**

