

# SS52-C THRU SS520-C

## 5.0A Surface Mount Schottky Barrier Rectifiers - 20V-200V

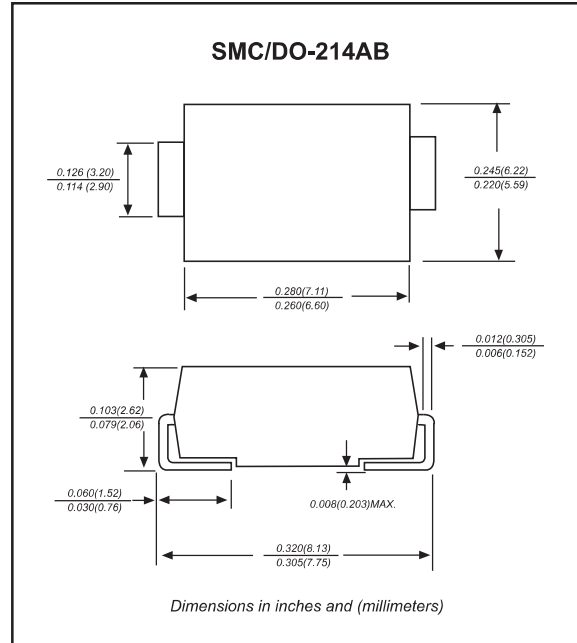
### Features

- ▶ 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°C/10 seconds at terminals
- ▶ Compliant to RoHS Directive 2011/65/EU
- ▶ Suffix "-H" indicates Halogen-free part, ex. SS54-C-H

### Mechanical data

- ▶ **Case:** JEDEC DO-214AB molded plastic body
- ▶ **Terminals:** Solder plated, solderable per MIL-STD-750, Method 2026
- ▶ **Polarity:** Color band denotes cathode end
- ▶ **Mounting Position:** Any

### Package outline



### Maximum ratings and Electrical Characteristics (AT $T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	CONDITIONS	Symbol	MIN.	TYP.	MAX.	UNIT
Forward rectified current	See Fig.2	$I_O$			5.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)	$I_{FSM}$			120	A
Reverse current	$V_R = V_{RRM} \quad T_A = 25^\circ\text{C}$	$I_R$			0.5	mA
	$V_R = V_{RRM} \quad T_A = 100^\circ\text{C}$				10	
Thermal resistance	Junction to ambient NOTE 1	$R_{\theta JA}$		50		$^\circ\text{C}/\text{W}$
Diode junction capacitance	f=1MHz and applied 4V DC reverse voltage	$C_J$		200		pF
Storage temperature		$T_{STG}$	-65		+150	$^\circ\text{C}$

**Note:** 1.P.C.B. mounted with 0.2x0.2"(5.0x5.0mm) copper pad areas

SYMBOLS	$V_{RM}^{*1}$ (V)	$V_{RMS}^{*2}$ (V)	$V_R^{*3}$ (V)	$V_F^{*4}$ (V)	Operating temperature $T_J$ , ( $^\circ\text{C}$ )
SS52-C	20	14	20	0.55	-55 to +125
SS53-C	30	21	30		
SS54-C	40	28	40		
SS55-C	50	35	50	0.70	-55 to +150
SS56-C	60	42	60		
SS58-C	80	56	80	0.85	
SS510-C	100	70	100		
SS515-C	150	105	150	0.92	
SS520-C	200	140	200		

\*1 Repetitive peak reverse voltage

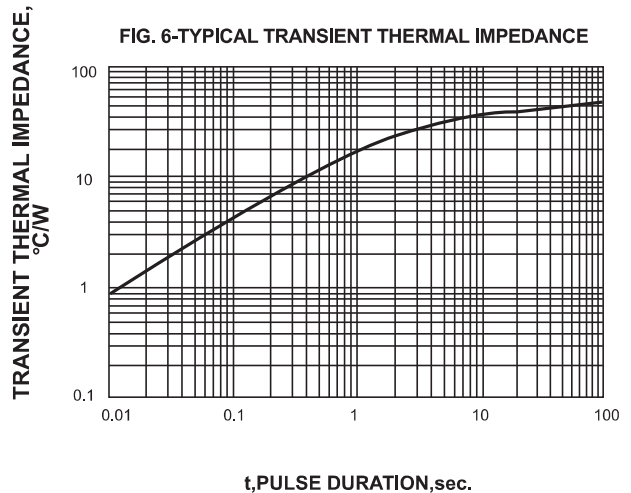
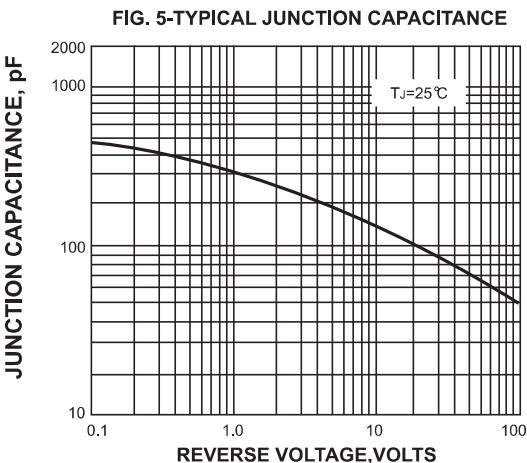
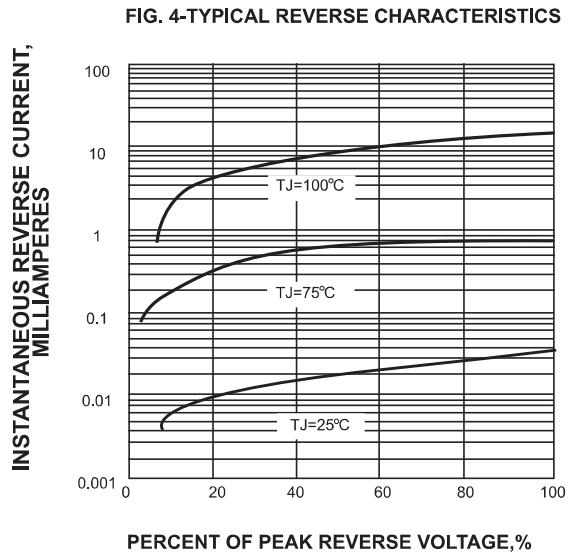
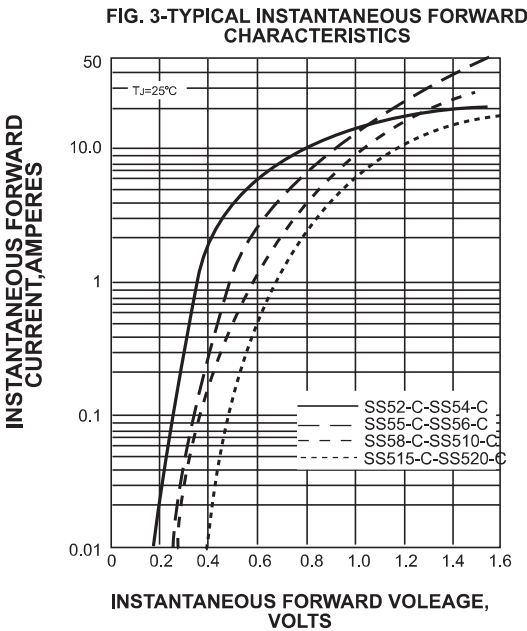
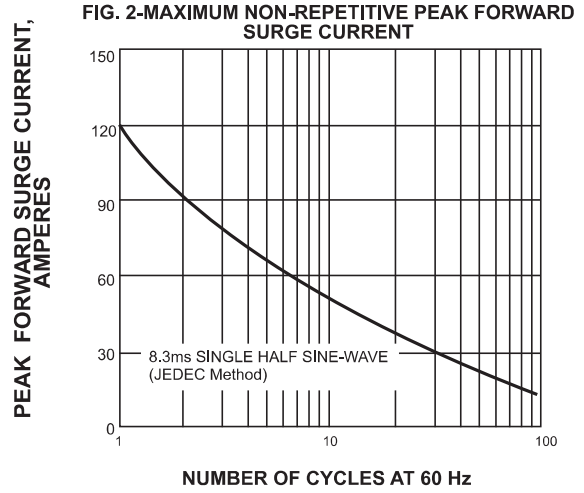
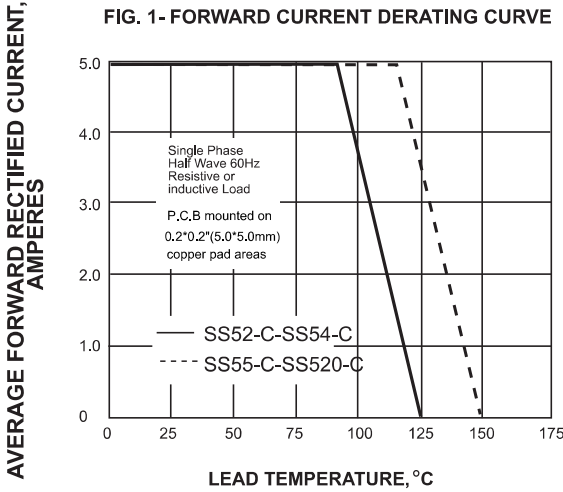
\*2 RMS voltage

\*3 Continuous reverse voltage

\*4 Maximum forward voltage@ $I_F=5.0\text{A}$



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## Rating and characteristic curves

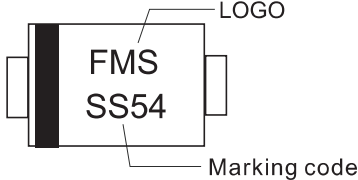
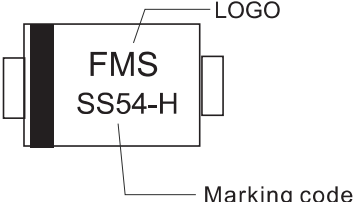


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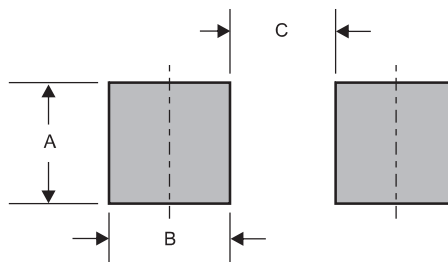
## Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

## Marking

Type number	Marking code	Example	
SS52-C	SS52	1. For Halogen Device	2. For Halogen-free Device "-H" indicate Halogen-Free.
SS53-C	SS53		
SS54-C	SS54		
SS55-C	SS55		
SS56-C	SS56		
SS58-C	SS58		
SS510-C	SS510		
SS515-C	SS515		
SS520-C	SS520		

## Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SMC	0.132 (3.30)	0.100 (2.50)	0.176(4.40)