

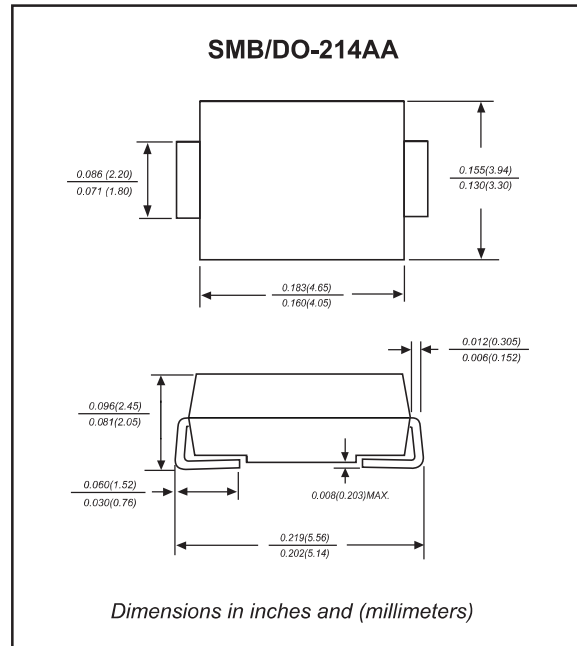
Features

- ▶ 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
- ▶ Compliant to Halogen-free
- ▶ Suffix "-Q1" for AEC-Q101

Mechanical data

- ▶ **Case:** JEDEC DO-214AA 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.1		I_O			5.0	A
Forward surge current	8.3ms single half sine-wave (JEDEC methode)		I_{FSM}			120	A
Reverse current	$T_A = 25^\circ\text{C}$	$V_R = 20\text{V} - 60\text{V}$	I_R			0.5	mA
		$V_R = 80\text{V} - 200\text{V}$				0.1	
Reverse current	$T_A = 100^\circ\text{C}$	$V_R = 20\text{V} - 60\text{V}$	I_R			10	mA
		$V_R = 80\text{V} - 200\text{V}$				5	
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-B-Q1	20	14	20	0.55	
SS53-B-Q1	30	21	30		
SS54-B-Q1	40	28	40		
SS55-B-Q1	50	35	50	0.70	
SS56-B-Q1	60	42	60		
SS58-B-Q1	80	56	80	0.85	
SS510-B-Q1	100	70	100		
SS515-B-Q1	150	105	150	0.92	
SS520-B-Q1	200	140	200		

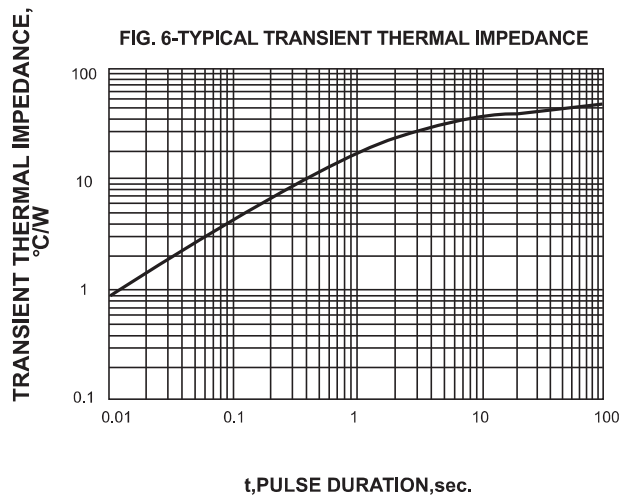
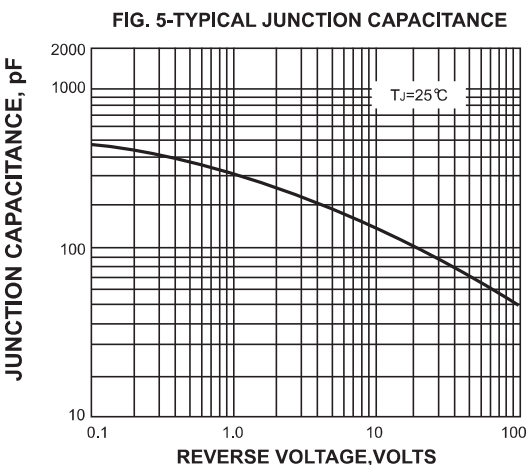
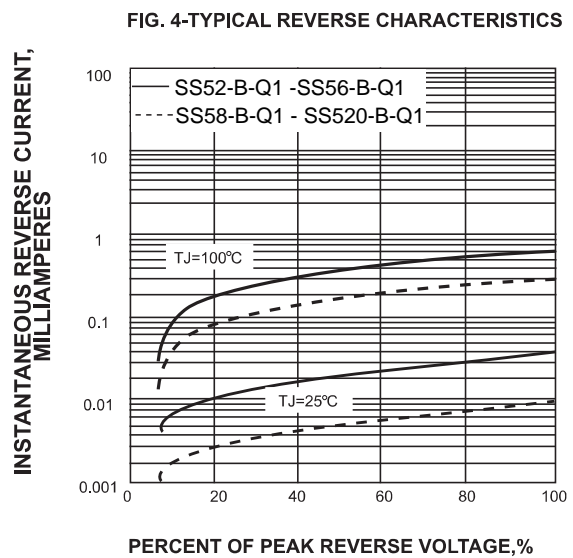
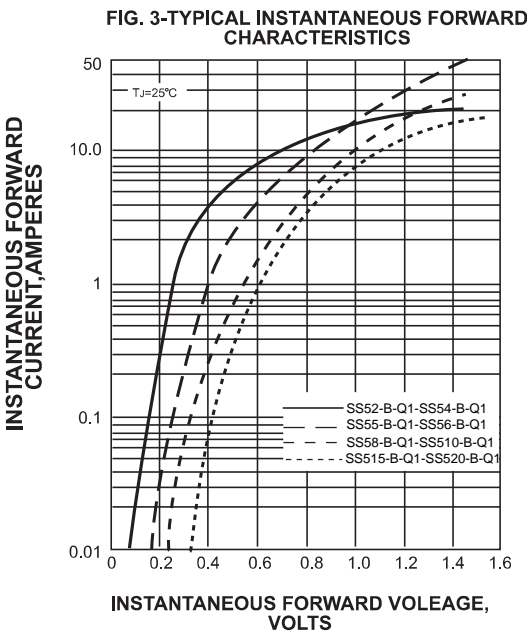
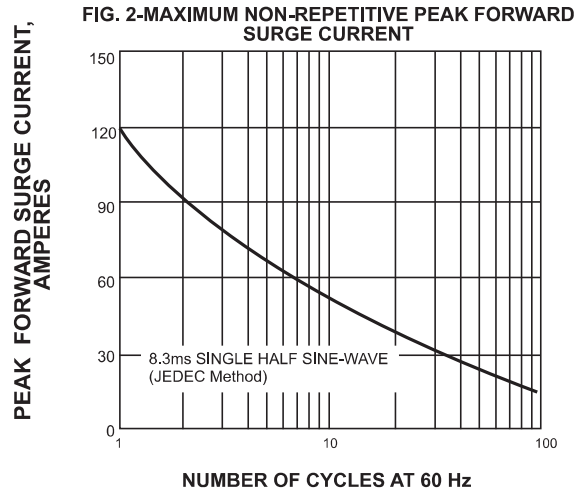
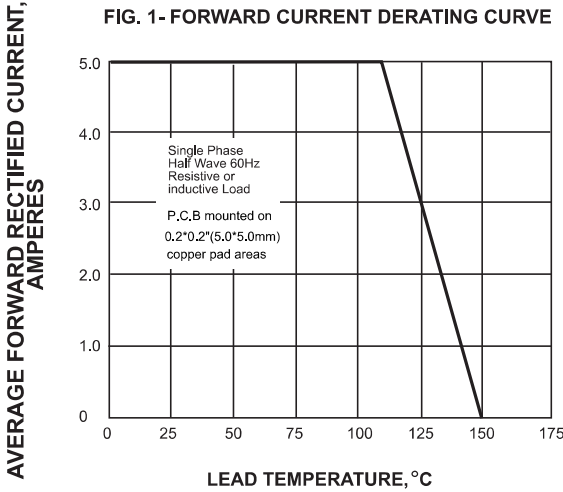
*1 Repetitive peak reverse voltage

*2 RMS voltage



*3 Continuous reverse voltage

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

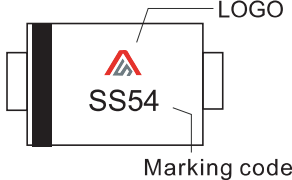
Rating and characteristic curves



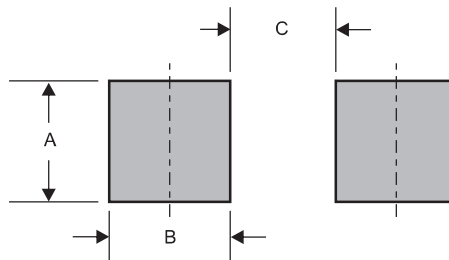
Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

Marking

Type number	Marking code	Example
SS52-B-Q1	SS52	
SS53-B-Q1	SS53	
SS54-B-Q1	SS54	
SS55-B-Q1	SS55	
SS56-B-Q1	SS56	
SS58-B-Q1	SS58	
SS510-B-Q1	SS510	
SS515-B-Q1	SS515	
SS520-B-Q1	SS520	

Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SMB	0.090(2.30)	0.098(2.50)	0.070(1.80)