

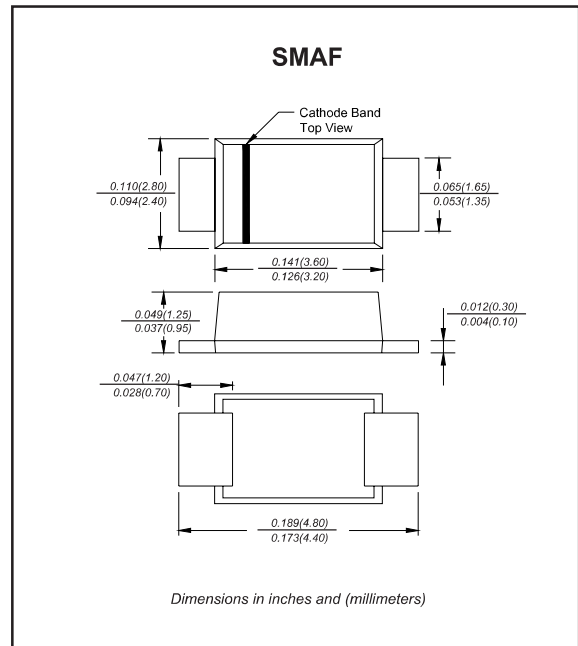
### Features

- ◆ 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

### Mechanical data

- ◆ **Case:** JEDEC SMF 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 method)	$I_{FSM}$			120	A
Reverse current	$T_A = 25^\circ\text{C}$	$I_R$	$V_R = 20\text{V} - 60\text{V}$		0.5	mA
			$V_R = 80\text{V} - 200\text{V}$		0.1	
Reverse current	$T_A = 100^\circ\text{C}$	$I_R$	$V_R = 20\text{V} - 60\text{V}$		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-F	20	14	20	0.55	-55 to +150
SS54-F	40	28	40		
SS545-F	45	32	45		
SS55-F	50	35	50	0.70	
SS56-F	60	42	60		
SS58-F	80	56	80	0.85	
SS510-F	100	70	100		
SS515-F	150	105	150	0.92	
SS520-F	200	140	200		

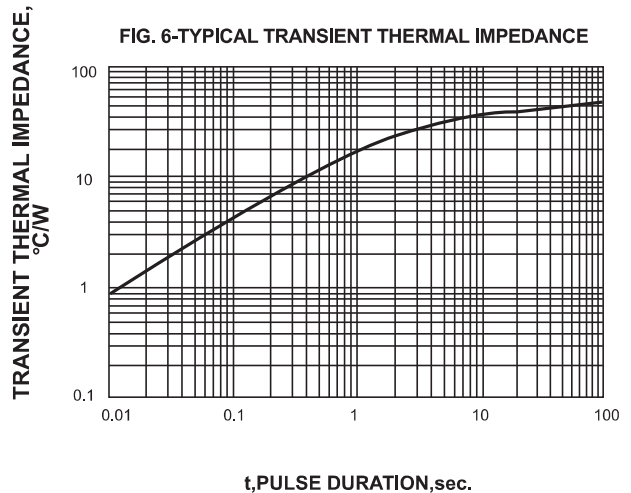
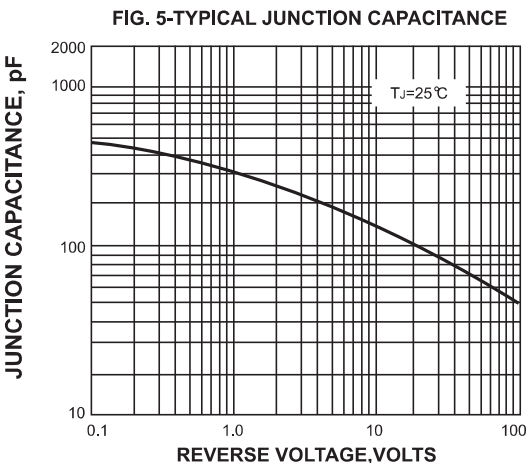
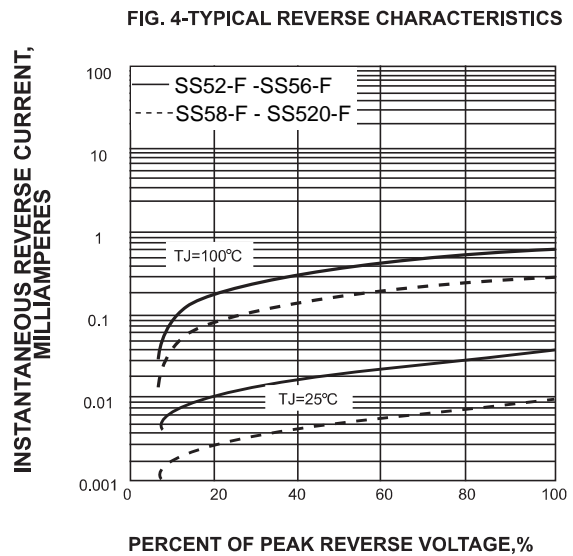
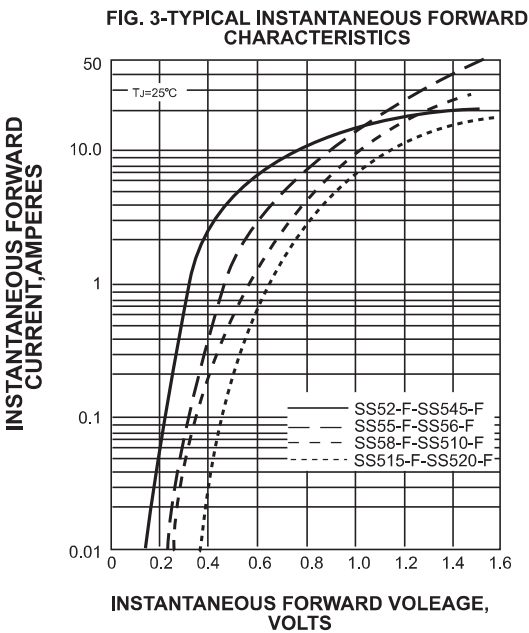
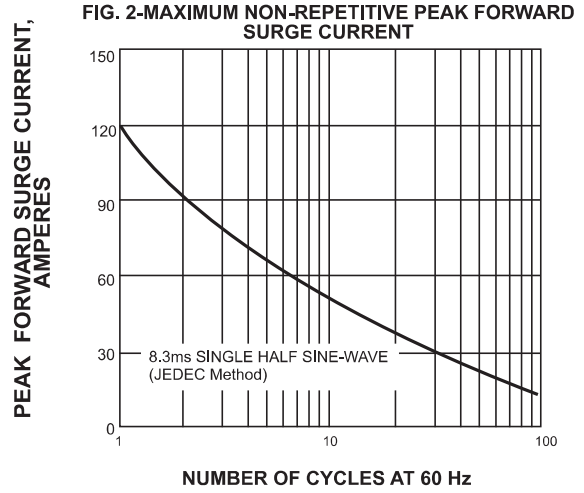
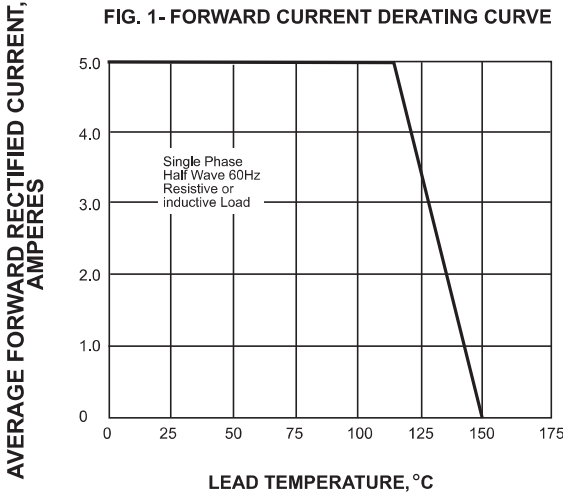
\*1 Repetitive peak reverse voltage

\*2 RMS voltage

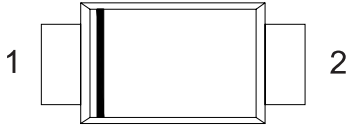

\*3 Continuous reverse voltage

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

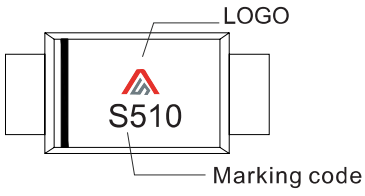
### Rating and characteristic curves



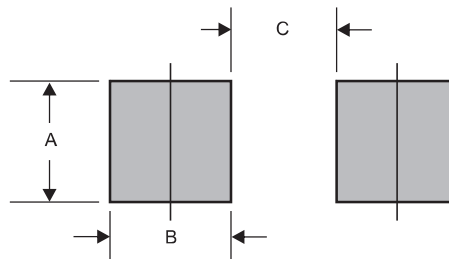
### Pinning information

Pin	Simplified outline	Symbol
Pin1 cathode Pin2 anode		

### Marking

Type number	Marking code	Example
SS52-F	S52	
SS54-F	S54	
SS545-F	S545	
SS55-F	S55	
SS56-F	S56	
SS58-F	S58	
SS510-F	S510	
SS515-F	S515	
SS520-F	S520	

### Suggested solder pad layout



Dimensions in inches and (millimeters)

PACKAGE	A	B	C
SMAF	0.110 (2.80)	0.063 (1.60)	0.087 (2.20)