

SS12FP – S115FP

THERMAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted) (Note 1)

Symbol	Parameter	Value	Unit
Ψ_{JL}	Thermal Characteristics, Junction-to-Lead (Note 2)	10	$^\circ\text{C}/\text{W}$
$R_{\theta JA}$	Thermal Resistance, Junction-to-Ambient	140	$^\circ\text{C}/\text{W}$

- Per JESD51-3 recommended thermal test board. Device mounted on FR-4 PCB, board size = 76.2 mm x 114.3 mm.
- Thermocouple soldered at cathode lead.

ELECTRICAL CHARACTERISTICS ($T_A = 25^\circ\text{C}$ unless otherwise noted)

Symbol	Parameter	Conditions	Value						Unit
			SS12 FP	SS13 FP	SS14 FP	SS16 FP	S110 FP	S115 FP	
V_F	Maximum Instantaneous Forward Voltage (Note 3)	$I_F = 0.5 \text{ A}$			0.51	0.58	0.70	0.75	V
		$I_F = 1.0 \text{ A}$	0.45	0.50	0.55	0.70	0.80	0.90	
I_R	Maximum Reverse Current at Rated V_R	$T_J = 25^\circ\text{C}$	0.40				0.05		mA
		$T_J = 125^\circ\text{C}$					0.50		
C_J	Typical Junction Capacitance	$V_R = 4 \text{ V}$, $f = 1 \text{ MHz}$	54				28		pF
T_{rr}	Typical Reverse Recovery Time	$I_F = 0.5 \text{ A}$, $I_R = 1 \text{ A}$, $I_{RR} = 0.25 \text{ A}$	6				14		ns

Product parametric performance is indicated in the Electrical Characteristics for the listed test conditions, unless otherwise noted. Product performance may not be indicated by the Electrical Characteristics if operated under different conditions.

- Pulse test with $PW = 300 \mu\text{s}$, 1% duty cycle.

ORDERING INFORMATION

Part Number	Device Code Marking	Package	Packing Method [†]
SS12FP	2FP	SOD-123EP	Tape and Reel
SS13FP	3FP	SOD-123EP	Tape and Reel
SS14FP	4FP	SOD-123EP	Tape and Reel
SS16FP	6FP	SOD-123EP	Tape and Reel
S110FP	0FP	SOD-123EP	Tape and Reel
S115FP	AFP	SOD-123EP	Tape and Reel

[†]For information on tape and reel specifications, including part orientation and tape sizes, please refer to our Tape and Reel Packaging Specifications Brochure, BRD8011/D.

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TYPICAL PERFORMANCE CHARACTERISTICS

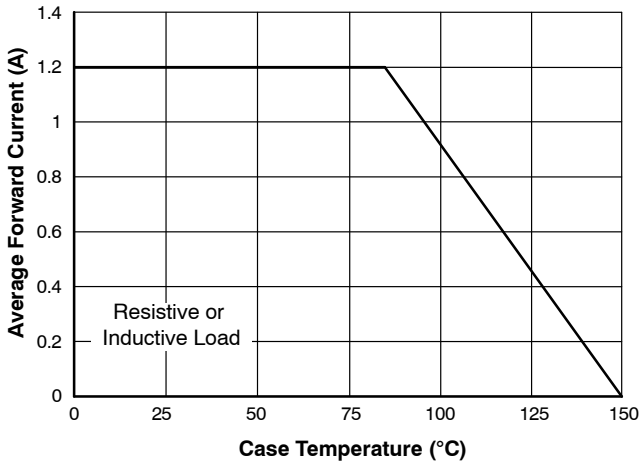


Figure 1. Forward Current Derating Curve

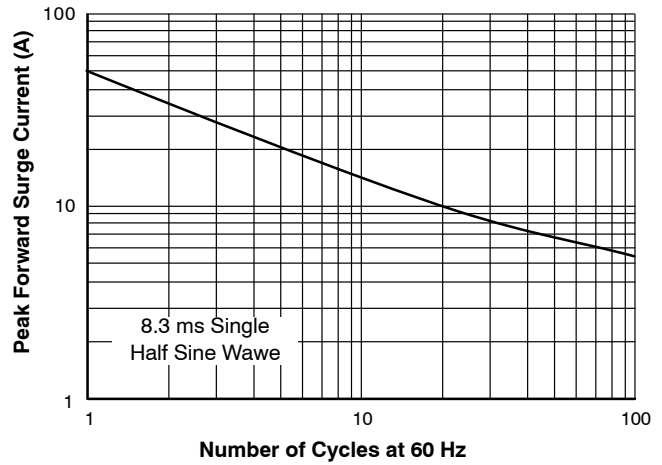


Figure 2. Maximum Non-Repetitive Forward Surge Current

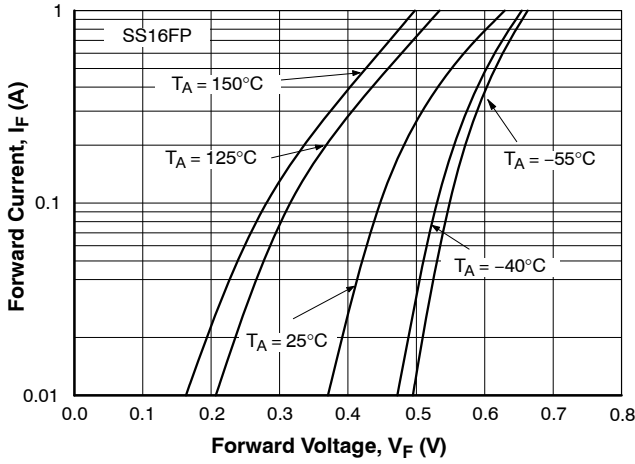


Figure 3. Typical Forward Characteristics

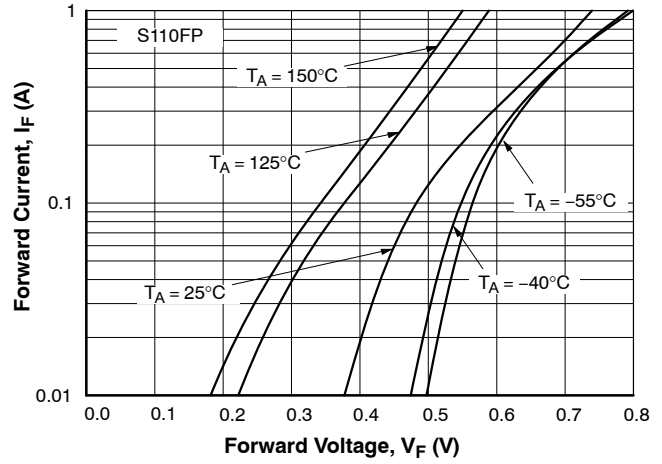


Figure 4. Typical Forward Characteristics

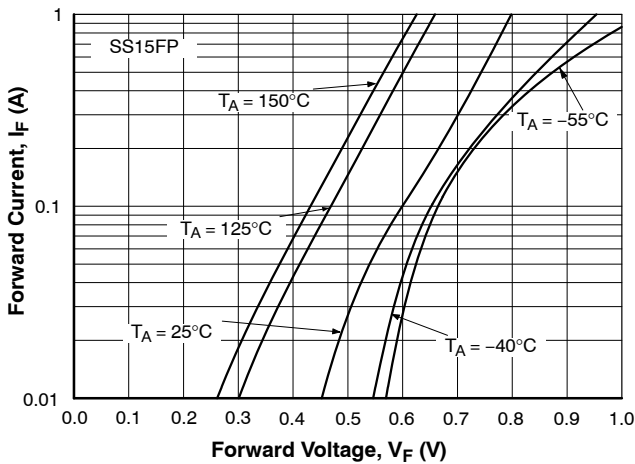


Figure 5. Typical Forward Characteristic

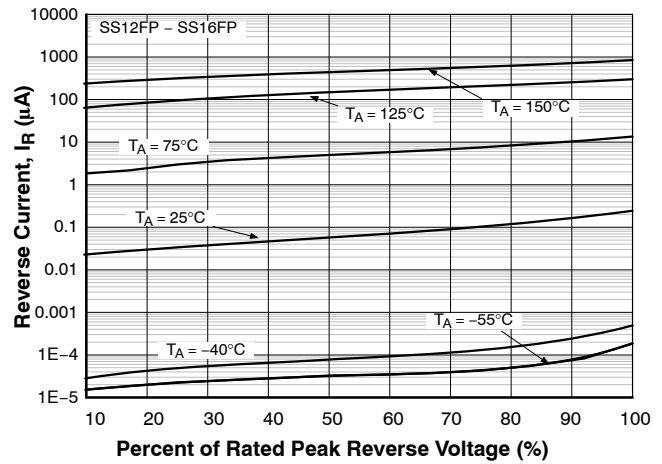


Figure 6. Typical Reverse Characteristics

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TYPICAL PERFORMANCE CHARACTERISTICS

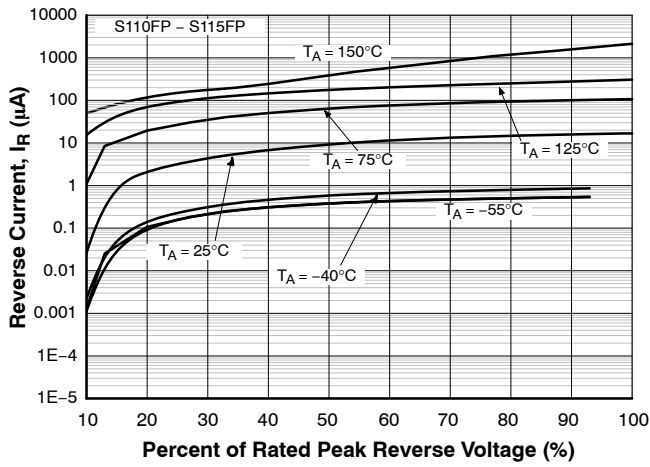


Figure 7. Typical Reverse Characteristic

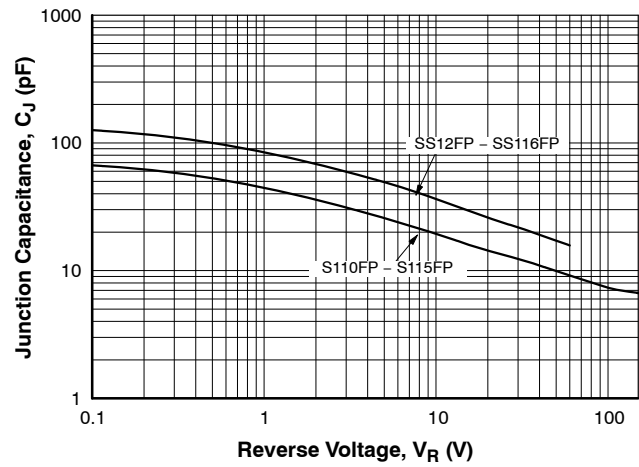


Figure 8. Typical Junction Capacitance

MECHANICAL CASE OUTLINE

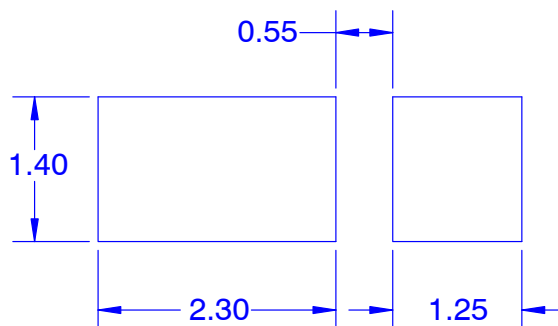
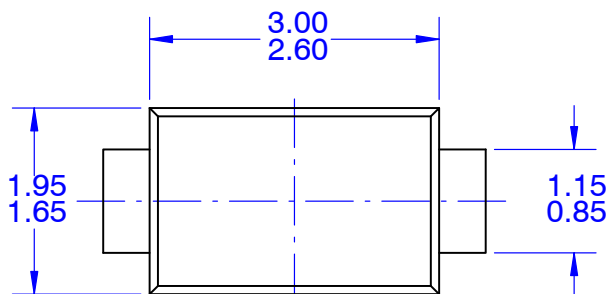
PACKAGE DIMENSIONS

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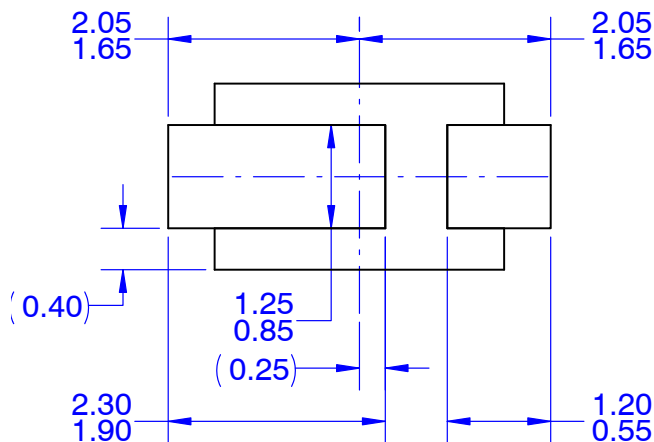
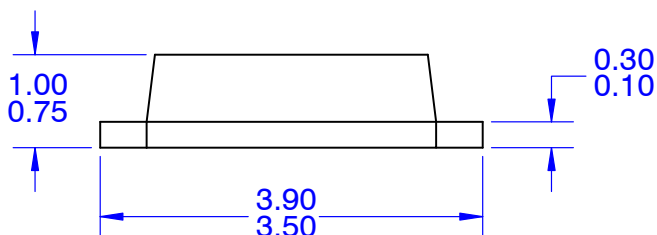


SOD-123EP
CASE 425AC
ISSUE O

DATE 31 AUG 2016



LAND PATTERN RECOMMENDATION
LONG PAD IS CATHODE



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