THERMAL CHARACTERISTICS (T_A = 25°C unless otherwise noted) (Note 1)

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

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

ELECTRICAL CHARACTERISTICS (T_A = 25°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 A			0.51	0.58	0.70	0.75	V
		I_F = 1.0 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°C	0.40				0.05		mA
		T_J = 125°C					0.50		
C_J	Typical Junction Capacitance	V_R = 4 V, f = 1 MHz	54				28		pF
Trr	Typical Reverse Recovery Time	I_F = 0.5 A, I_R = 1 A, I_{RR} = 0.25 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.

3. Pulse test with PW = 300 μs, 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.

TYPICAL PERFORMANCE CHARACTERISTICS

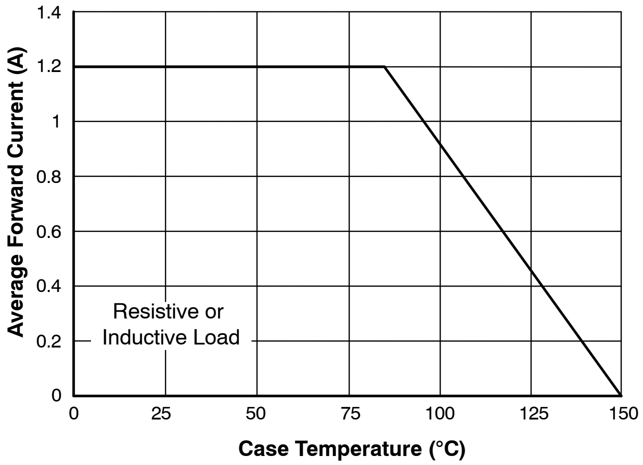


Figure 1. Forward Current Derating Curve

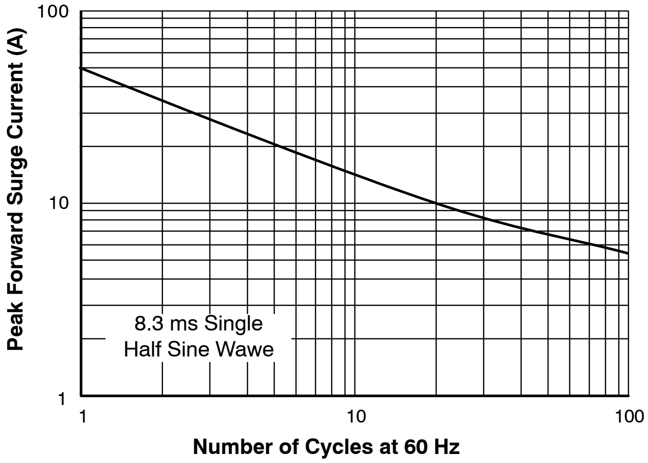


Figure 2. Maximum Non−Repetitive Forward Surge Current

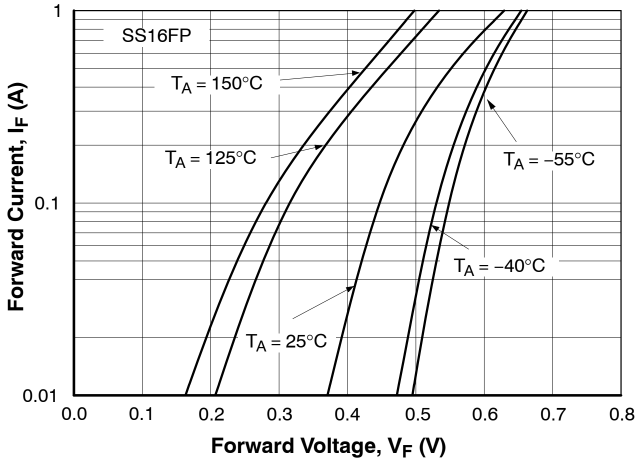


Figure 3. Typical Forward Characteristics

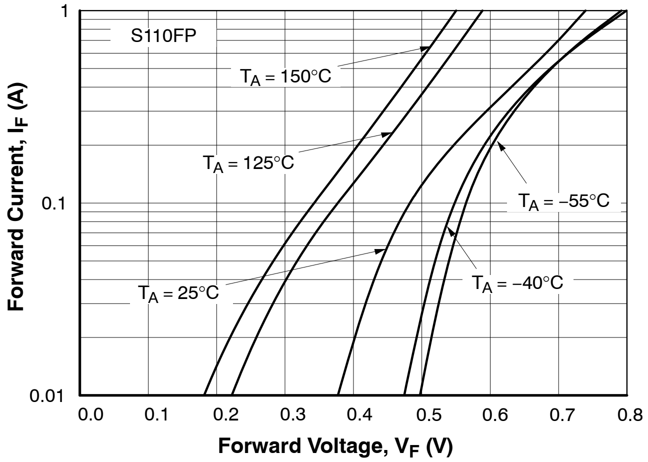


Figure 4. Typical Forward Characteristics

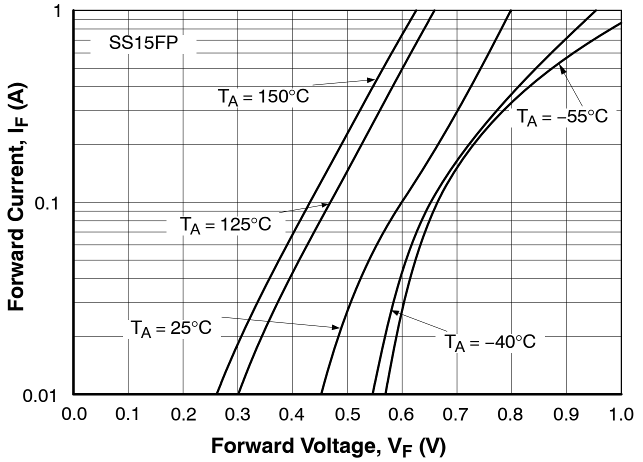


Figure 5. Typical Forward Characteristic

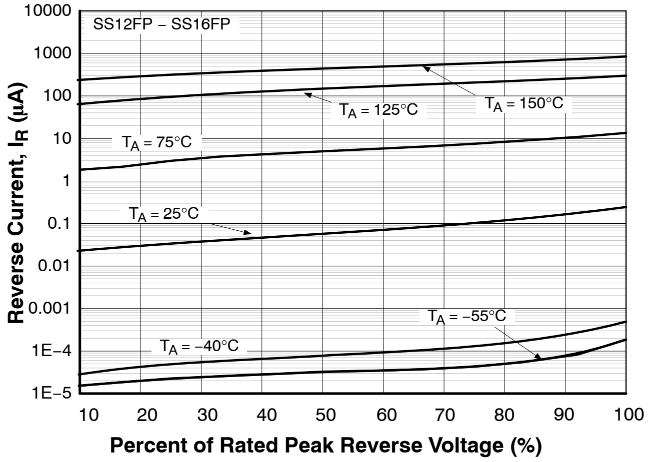


Figure 6. Typical Reverse Characteristics

TYPICAL PERFORMANCE CHARACTERISTICS

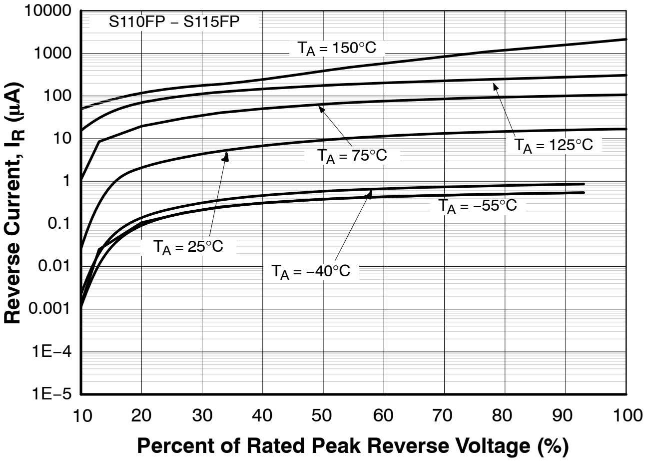


Figure 7. Typical Reverse Characteristic

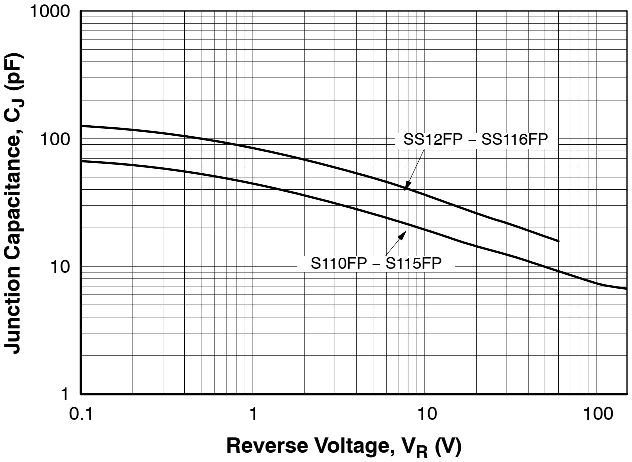


Figure 8. Typical Junction Capacitance

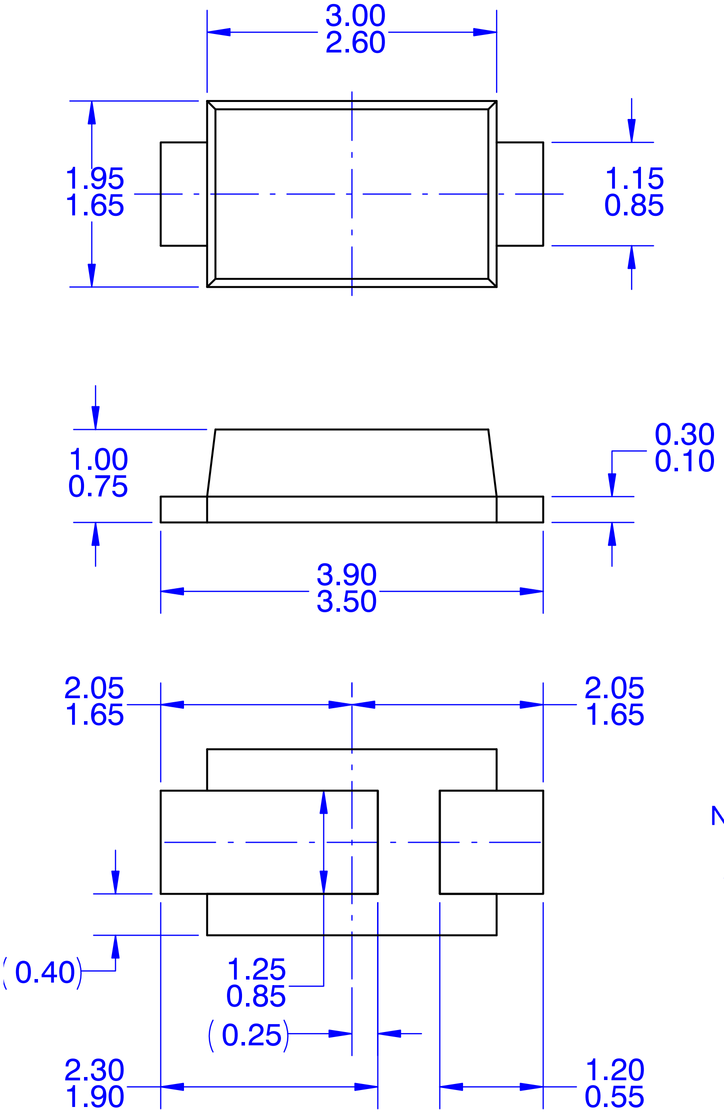
MECHANICAL CASE OUTLINE

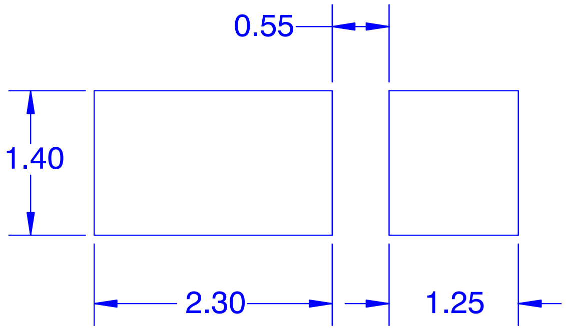
PACKAGE DIMENSIONS

ON Semiconductor®

SOD−123EP
CASE 425AC
ISSUE O

DATE 31 AUG 2016





LAND PATTERN RECOMMENDATION

LONG PAD IS CATHODE

NOTES:

A. NO INDUSTRY STANDARD APPLIES TO THIS PACKAGE.
B. ALL DIMENSIONS ARE IN MILLIMETERS.
C. DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH AND TIE BAR PROTRUSIONS.

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