

SS32 – S310

ABSOLUTE MAXIMUM RATINGS Values are at $T_A = 25^\circ\text{C}$ unless otherwise noted.

Symbol	Parameter	Value								Units
		SS32	SS33	SS34	SS35	SS36	SS38	SS39	S310	
V_{RRM}	Maximum Repetitive Reverse Voltage	20	30	40	50	60	80	90	100	V
$I_{F(AV)}$	Maximum Average Forward Current at $T_A = 75^\circ\text{C}$	3.0								A
I_{FSM}	Non–Repetitive Peak Forward Surge Current: 8.3 ms Single Half–Sine Wave	100								A
dV/dt	Maximum Voltage Rate of Change	10000								V/ μs
T_{STG}	Storage Temperature Range	–55 to +150								$^\circ\text{C}$
T_J	Operating Junction Temperature	–55 to +150								$^\circ\text{C}$

Stresses exceeding those listed in the Maximum Ratings table may damage the device. If any of these limits are exceeded, device functionality should not be assumed, damage may occur and reliability may be affected.

THERMAL CHARACTERISTICS

Symbol	Parameter	Value	Unit
P_D	Power Dissipation	2.27	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient (Note 1)	55	$^\circ\text{C}/\text{W}$
$R_{\theta JL}$	Thermal Resistance, Junction to Lead	17	$^\circ\text{C}/\text{W}$

1. Device mounted on FE–4 PCB 0.55 x 0.55 inch (14 x 14 mm).

ELECTRICAL CHARACTERISTICS Values are at $T_A = 25^\circ\text{C}$ unless otherwise noted.

Symbol	Parameter	Test Conditions	Value								Units
			SS32	SS33	SS34	SS35	SS36	SS38	SS39	S310	
V_F	Forwarded Voltage	$I_F = 3.0\text{ A}$	500		750		850			mV	
I_R	Reverse Current at Rated V_R	$T_A = 25^\circ\text{C}$	0.5								mA
		$T_A = 100^\circ\text{C}$	20		10						

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.

TYPICAL CHARACTERISTICS

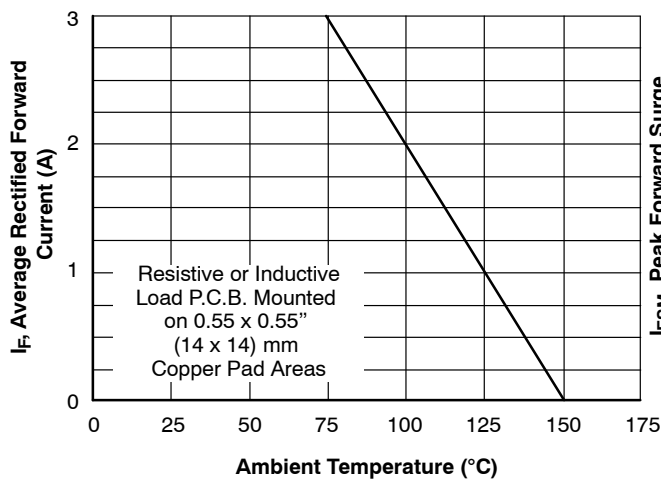


Figure 1. Forward Current Derating Curve

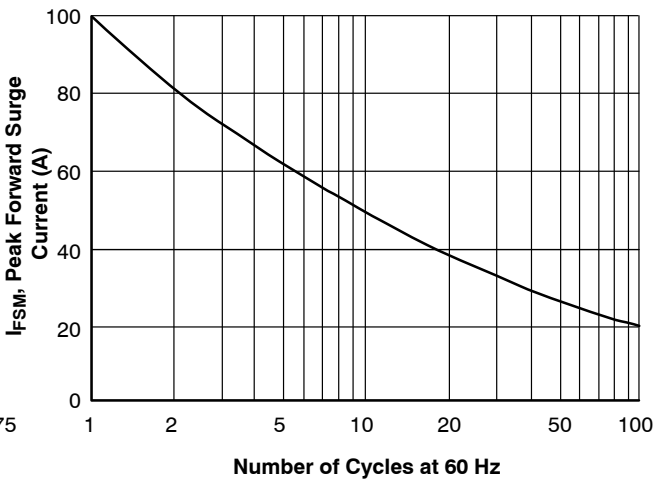


Figure 2. Non–Repetitive Surge Current

TYPICAL CHARACTERISTICS

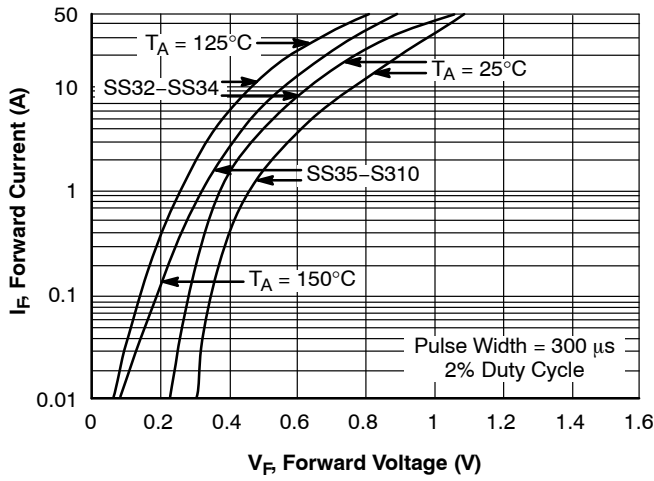


Figure 3. Forward Voltage Characteristics

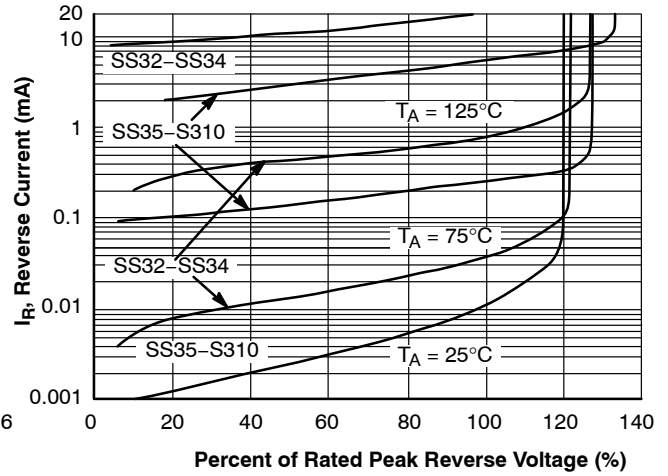


Figure 4. Reverse Current vs. Reverse Voltage

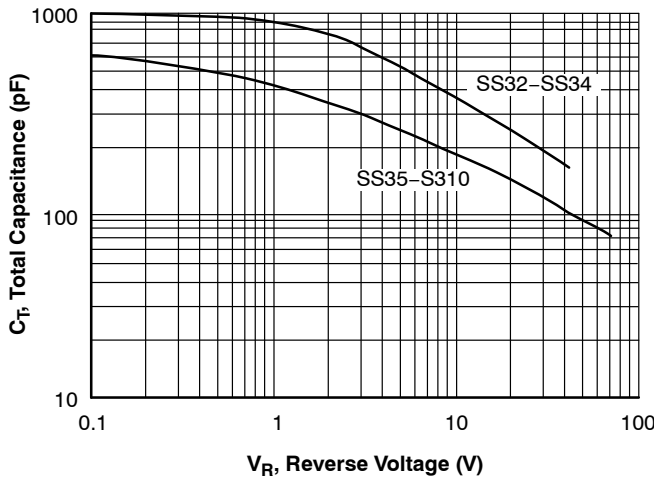


Figure 5. Total Capacitance

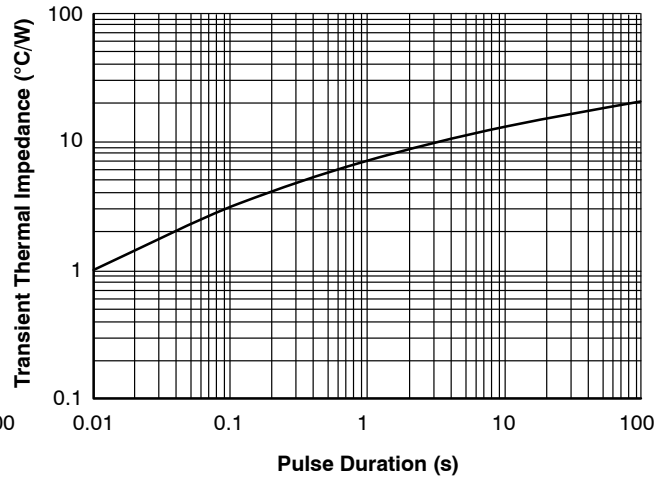


Figure 6. Thermal Impedance Characteristics

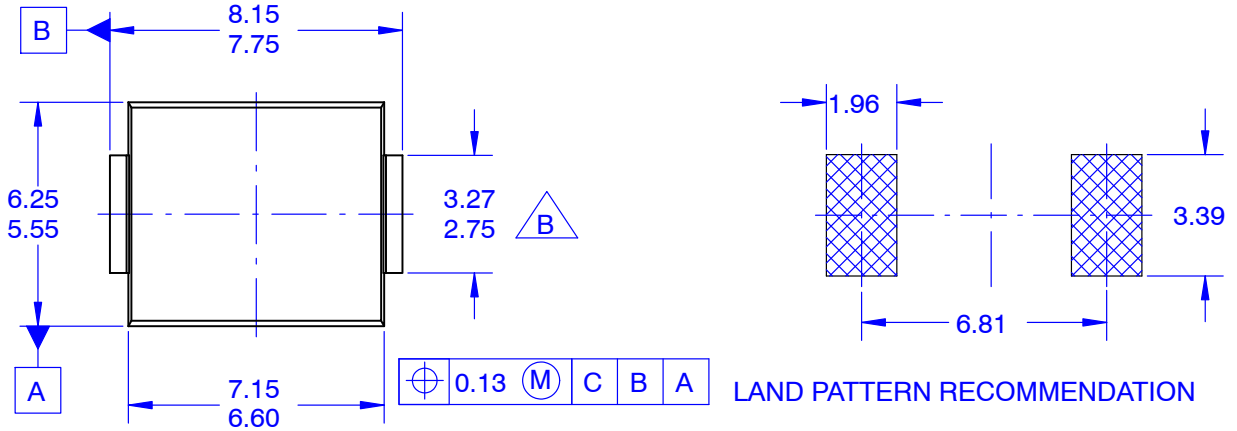
MECHANICAL CASE OUTLINE
PACKAGE DIMENSIONS

ON Semiconductor®

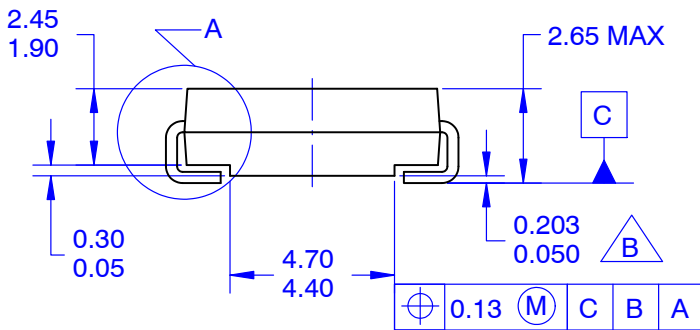


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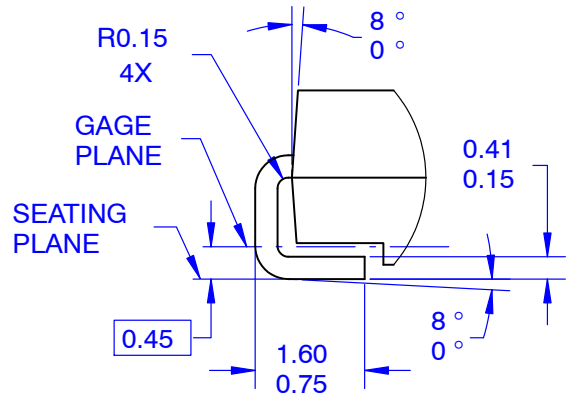
DATE 31 AUG 2016



TOP VIEW



SIDE VIEW



DETAIL A
 SCALE 2:1

NOTES:

A. EXCEPT WHERE NOTED, CONFORMS TO JEDEC DO-214, VARIATION AB

- B** DOES NOT COMPLY TO JEDEC STD. VALUE
- C. ALL DIMENSIONS ARE IN MILLIMETERS
- D. DIMENSIONS ARE EXCLUSIVE OF BURRS, MOLD FLASH, AND TIE BAR PROTRUSIONS.
- E. DIMENSIONS AND TOLERANCING AS PER ASME Y14.5-2009
- F. LAND PATTERN STANDARD: DIOM7957X241M

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