

# 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/ $\mu\text{s}$
$T_{STG}$	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

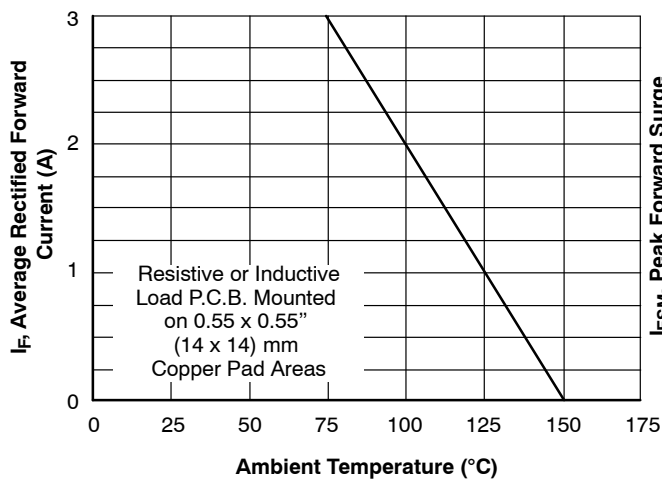


Figure 1. Forward Current Derating Curve

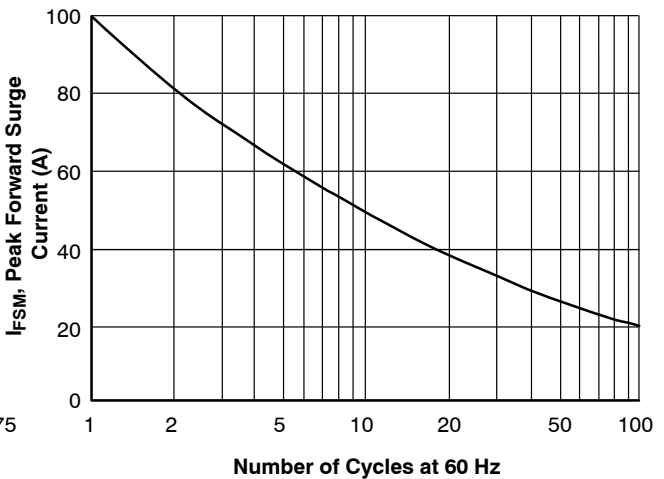


Figure 2. Non–Repetitive Surge Current

TYPICAL CHARACTERISTICS

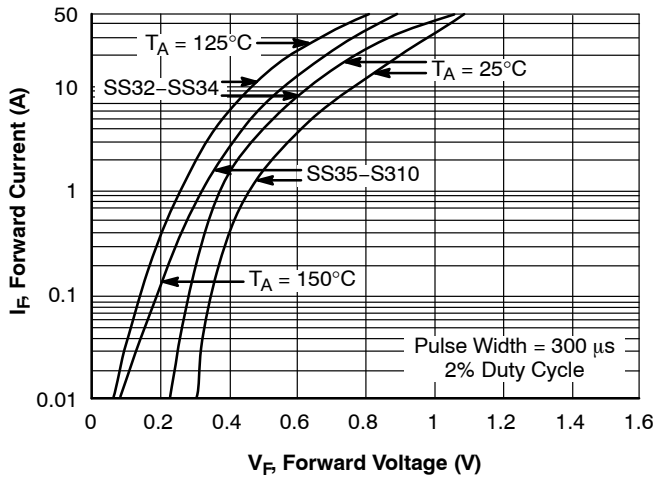


Figure 3. Forward Voltage Characteristics

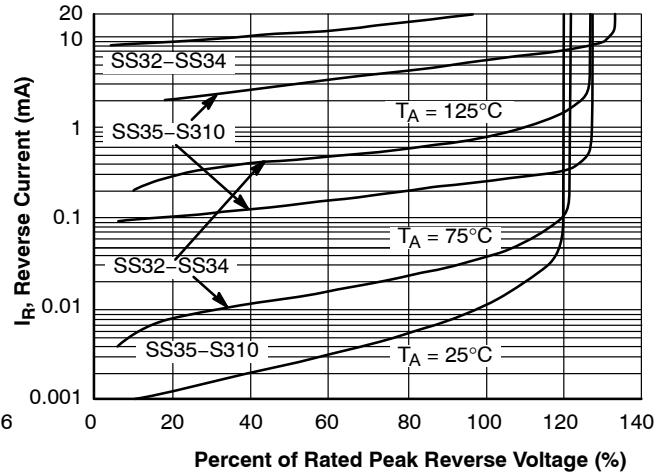


Figure 4. Reverse Current vs. Reverse Voltage

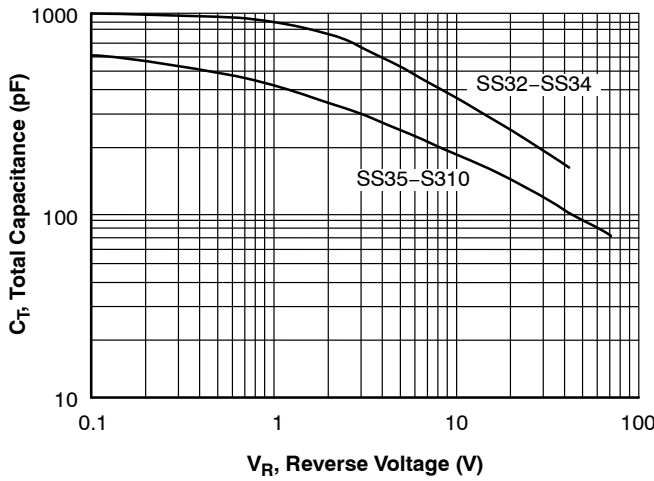


Figure 5. Total Capacitance

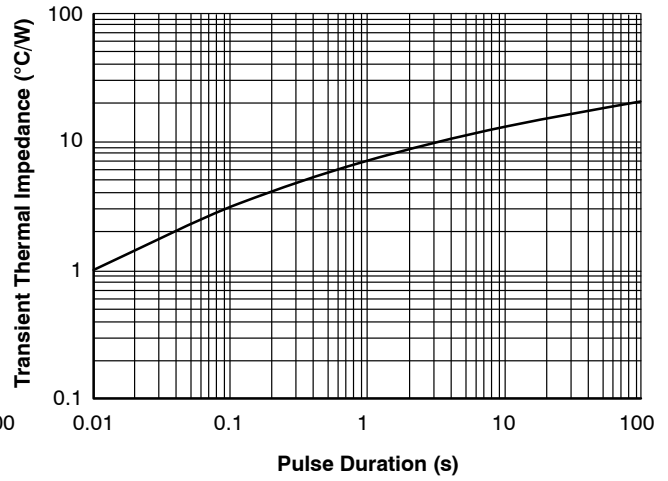
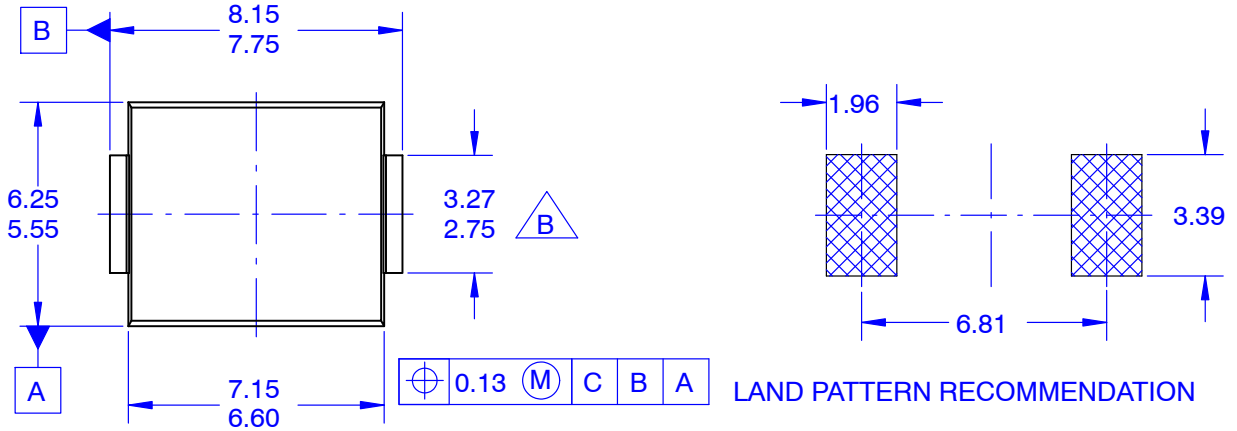


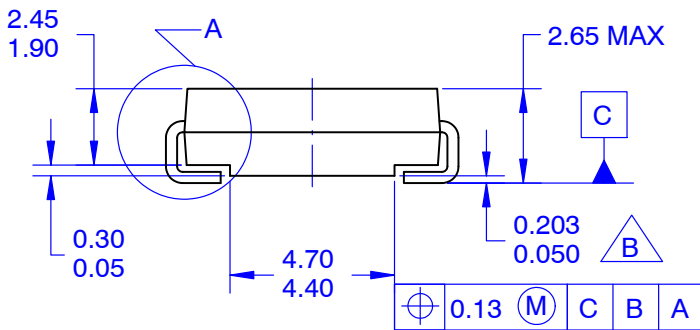
Figure 6. Thermal Impedance Characteristics

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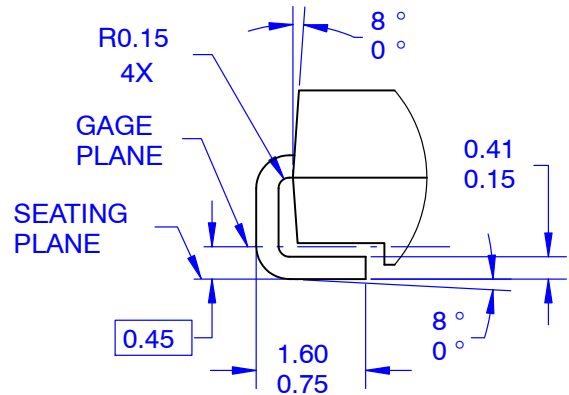
DATE 31 AUG 2016



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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