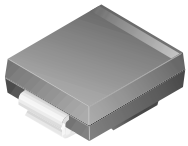
FAIRCHILD
SEMICONDUCTOR®

SS32 - S310

Features

- Metal to silicon rectifiers, majority carrier conduction.
- Low forward voltage drop.
- Easy pick and place.
- High surge current capability.



SMC/DO-214AB
COLOR BAND DENOTES CATHODE

Schottky Rectifiers

Absolute Maximum Ratings*

T_A = 25°C unless otherwise noted

Symbol	Parameter	Value								Units
		32	33	34	35	36	38	39	310	
V_{RRM}	Maximum Repetitive Reverse Voltage	20	30	40	50	60	80	90	100	V
$I_{F(AV)}$	Average Rectified Forward Current, @ T_A = 75°C	3.0								A
I_{FSM}	Non-repetitive Peak Forward Surge Current 8.3 ms Single Half-Sine-Wave	100								A
T_{stg}	Storage Temperature Range	-55 to +150								°C
T_J	Operating Junction Temperature	-55 to +150								°C

*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

Thermal Characteristics

Symbol	Parameter	Value	Units
P_D	Power Dissipation	2.27	W
$R_{\theta JA}$	Thermal Resistance, Junction to Ambient *	55	°C/W
$R_{\theta JL}$	Thermal Resistance, Junction to Lead	17	°C/W

*Device mounted on FR-4 PCB 0.55 x 0.55" (14 x 14 mm).

Electrical Characteristics

T_A = 25°C unless otherwise noted

Symbol	Parameter		Device								Units
			32	33	34	35	36	38	39	310	
V_F	Forward Voltage @ 3.0 A		500			750		850			mV
I_R	Reverse Current @ rated V_R	T_A = 25°C	0.5								mA
		T_A = 100°C	20			10					mA

Typical Characteristics

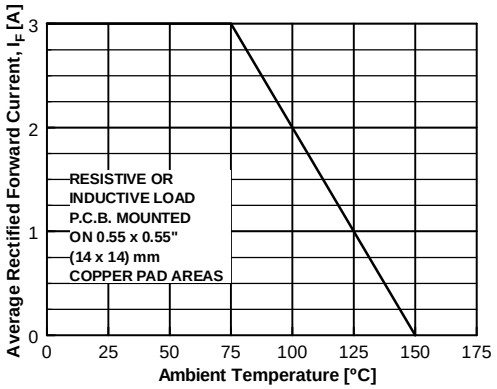


Figure 1. Forward Current Derating Curve

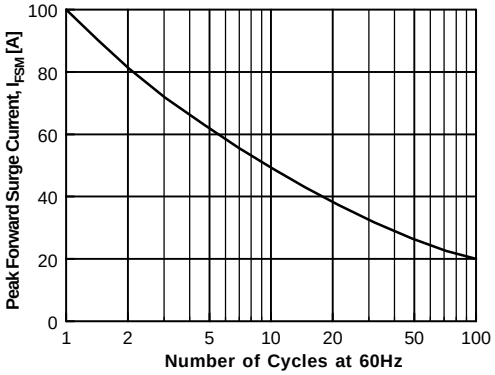


Figure 2. Non-Repetitive Surge Current

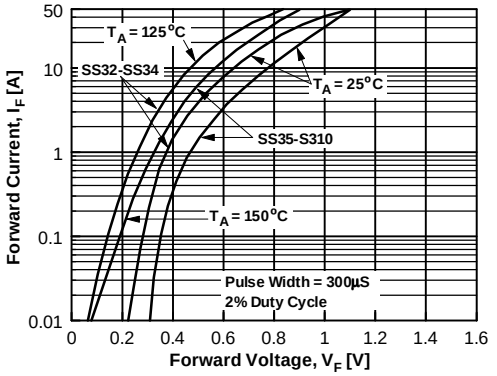


Figure 3. Forward Voltage Characteristics

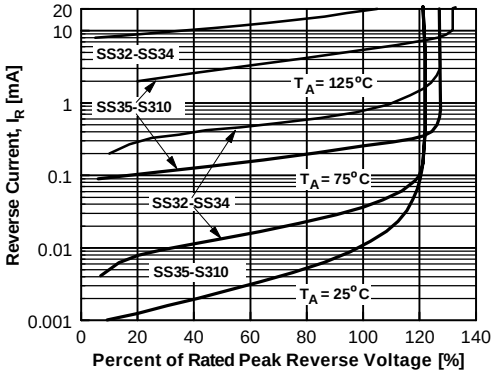


Figure 4. Reverse Current vs Reverse Voltage

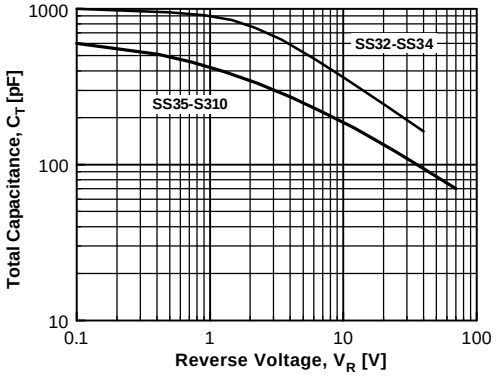


Figure 5. Total Capacitance

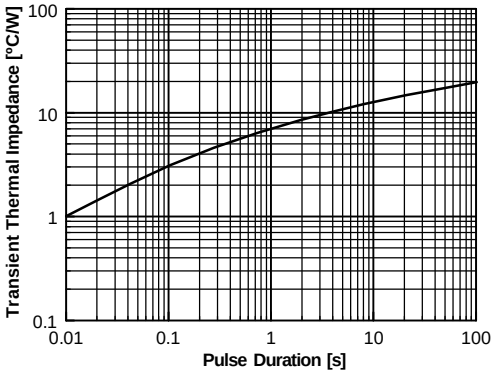


Figure 6. Thermal Impedance Characteristics

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DenseTrench™	GTO™	Power247™	SuperSOT™-6	
DOME™	HiSeC™	PowerTrench®	SuperSOT™-8	
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FACT™	MicroPak™	Quiet Series™	UHC™	
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No Identification Needed	Full Production	This datasheet contains final specifications. Fairchild Semiconductor reserves the right to make changes at any time without notice in order to improve design.
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