

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

VOLTAGE 20 to 200 Volt CURRENT 5 Ampere

Features

For surface mounted application
 Metal to silicon rectifier, majority carrier conduction
 Low forward voltage drop
 Easy pick and place
 High surge current capability
 Plastic material used carriers Underwriters
 Laboratory Classification 94V-0
 Epitaxial construction
 High temperature soldering:
 260°C / 10 seconds at terminals
 AEC-Q101 qualified (Automotive grade with suffix "Q".)



Mechanical Data

Case: Molded plastic
 Terminals: Pure tin plated, lead free.
 Polarity: Indicated by cathode band
 Packaging: 16mm tape per EIA STD RS-481

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

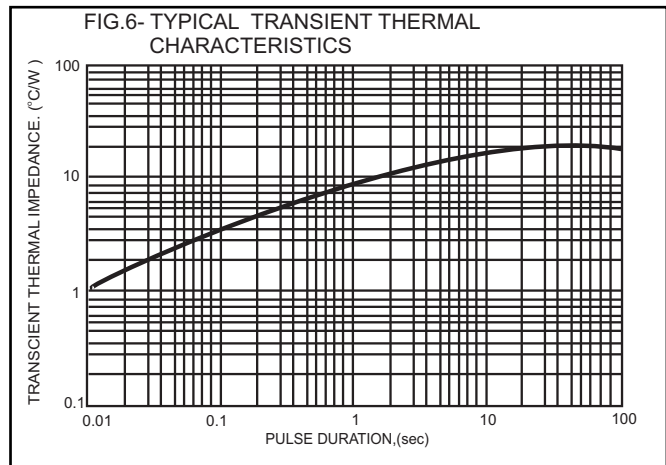
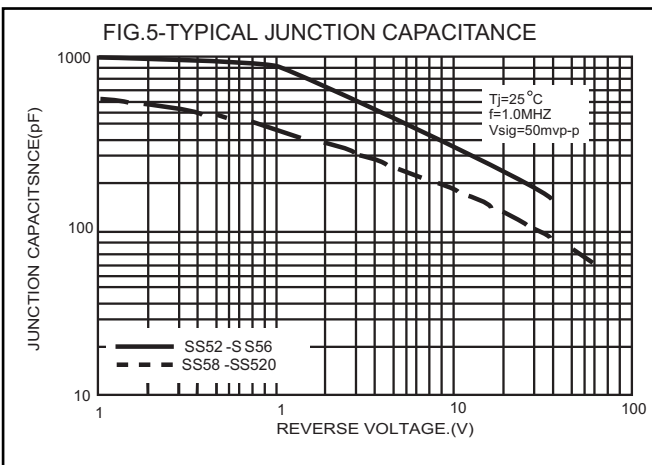
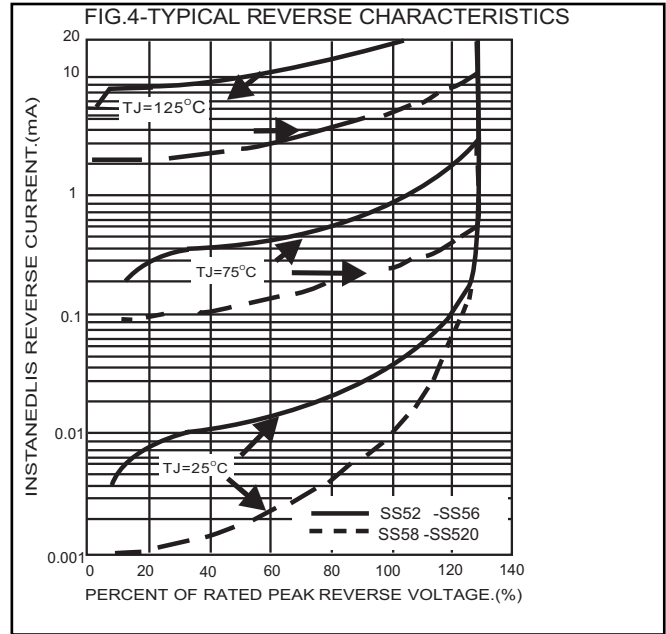
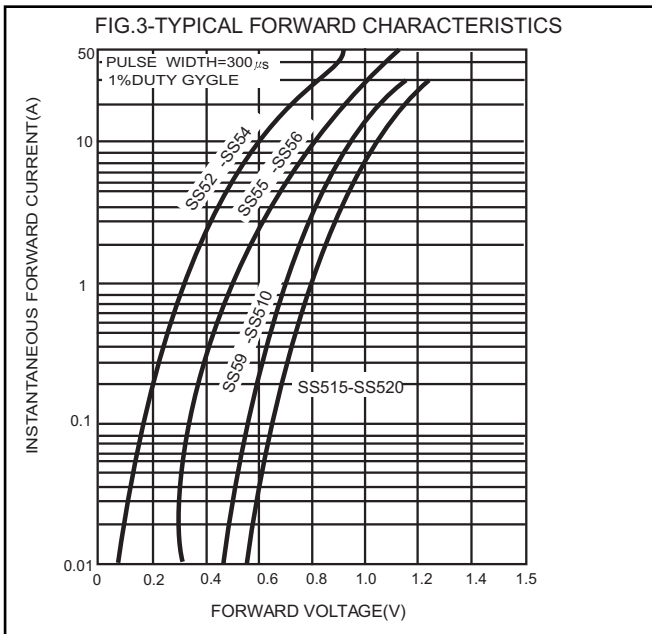
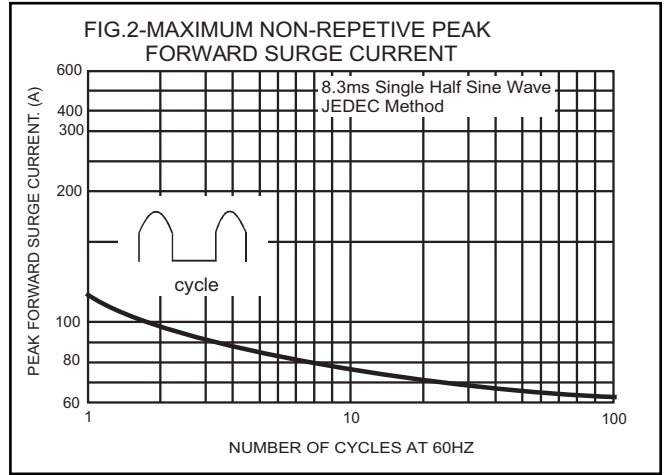
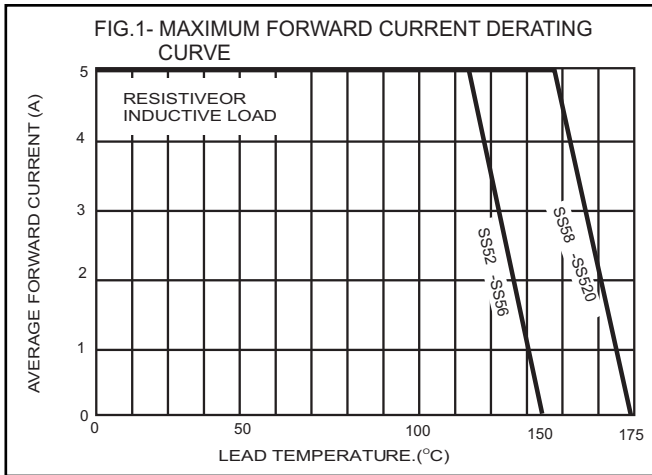
Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

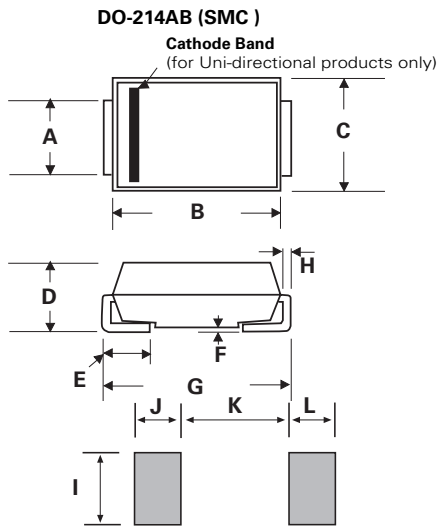
Type Number	Symbol	SS 52	SS 53	SS 54	SS 55	SS 56	SS 510	SS 515	SS 520	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	100	150	200	V
Maximum Average Forward Rectified Current at T_L (See Fig. 1)	$I_{(AV)}$	5.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	150								A
Maximum Instantaneous Forward Voltage @ 5.0A	V_F	0.49		0.53		0.80	0.95		V	
Maximum DC Reverse Current (Note 1) @ $T_A=25^\circ\text{C}$ at Rated DC Blocking Voltage @ $T_A=125^\circ\text{C}$	I_R	30				1				uA
		200				100				uA
Typical Thermal Resistance (Note 2)	$R_{\theta JL}$	17								°C/W
	$R_{\theta JA}$	75								
Operating Temperature Range	T_J	-55 to +150				-55 to +175				°C
Storage Temperature Range	T_{STG}	-55 to +150				-55 to +175				°C

Notes: 1. Pulse Test with PW=300 usec, 1% Duty Cycle
 2. Measured on P.C.Board with 0.6" x 0.6"(16mm x 16mm) Copper Pad Areas.

RATINGS AND CHARACTERISTIC CURVES (SS52 THRU SS520)



Dimensions

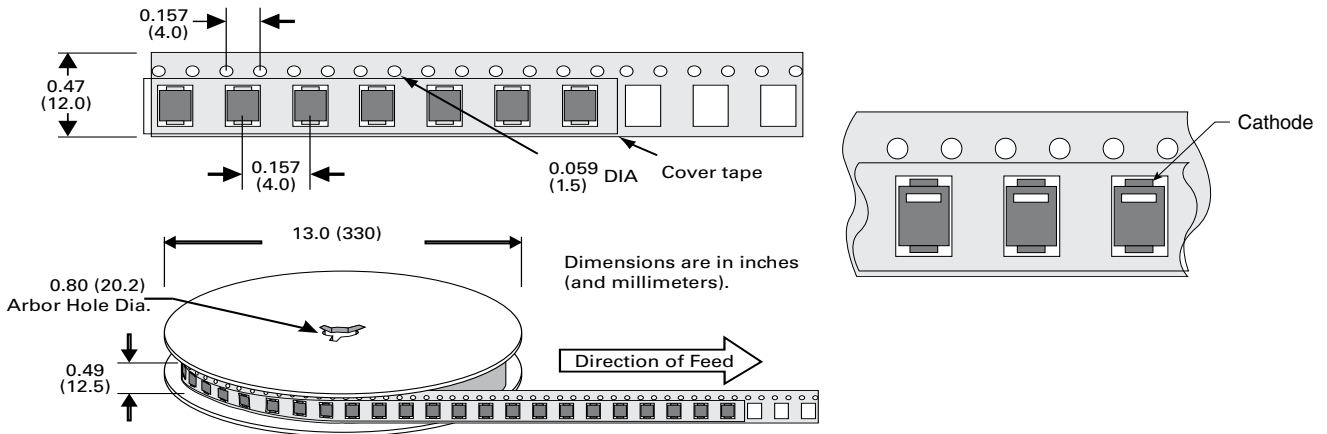


Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.108	0.128	2.750	3.250
B	0.260	0.291	6.600	7.400
C	0.220	0.246	5.590	6.250
D	0.078	0.108	1.980	2.750
E	0.030	0.060	0.760	1.520
F	0.002	0.008	0.051	0.203
G	0.303	0.323	7.700	8.200
H	0.006	0.012	0.152	0.305
I	0.129	-	3.300	-
J	0.094	-	2.400	-
K	-	0.165	-	4.200
L	0.094	-	2.400	-

Packaging Options

Part number	Component Package	Quantity	Packaging Option	Packaging Specification
SS5XX	DO-214AB	3000	Tape & Reel - 16mm tape/13" reel	EIA STD RS-481

Tape and Reel Specication



Note: Devices are packde in accordance with EIA standard RS-481-Aand specification given above.