

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage -20 to 200 Volts Forward Current -5.0 Amperes

FEATURES

The plastic package carries Underwriters Laboratory
 Flammability Classification 94V-0
 For surface mounted applications
 Metal silicon junction, majority carrier conduction
 Low power loss, high efficiency
 Built-in strain relief, ideal for automated placement
 High forward surge current capability
 High temperature soldering guaranteed:
 250 C/10 seconds at terminals
 AEC-Q101 qualified (Automotive grade with suffix "Q".)
 Exsemi technology



MECHANICAL DATA

Case: JEDEC DO-214AC molded plastic body
 Terminals: leads solderable per MIL-STD-750,
 Method 2026
 Polarity: Color band denotes cathode end
 Mounting Position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.
 Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Number	SYMBOLS	SS52A	SS53A	SS54A	SS55A	SS56A	SS58A	SS 510A	SS 515A	SS 520A	UNITS	
Maximum repetitive peak reverse voltage	V_{RRM}	20	30	40	50	60	80	100	150	200	VOLTS	
Maximum RMS voltage	V_{RMS}	14	21	28	35	42	56	70	105	140	VOLTS	
Maximum DC blocking voltage	V_{DC}	20	30	40	50	60	80	100	150	200	VOLTS	
Maximum average forward rectified current at T_L (see fig.1)	$I_{(AV)}$	5.0									Amp	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	150.0									Amps	
Maximum instantaneous forward voltage at 1.0A	V_F	0.49			0.53		0.85		0.95		Volts	
Maximum DC reverse current at rated DC blocking voltage	I_R	30					1				μA	
		200					100				μA	
Typical thermal resistance (NOTE 1)	$R_{\theta JA}$	60.0									°C/W	
Operating junction temperature range	T_J	-50 to +150					-50 to +175					°C
Storage temperature range	T_{STG}	-50 to +150					-50 to +175					°C

Note: 1. P.C.B. mounted with 0.2x0.2" (5.0x5.0mm) copper pad areas

RATINGS AND CHARACTERISTIC CURVES

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

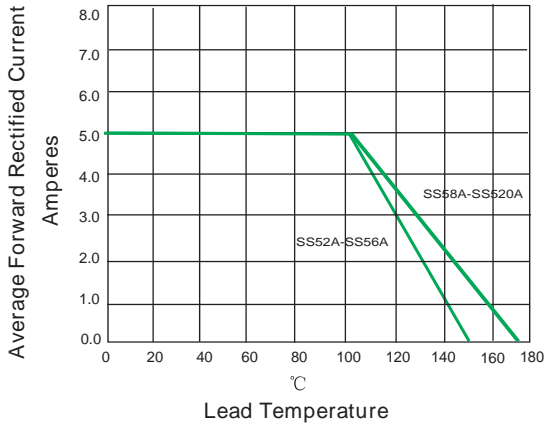


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

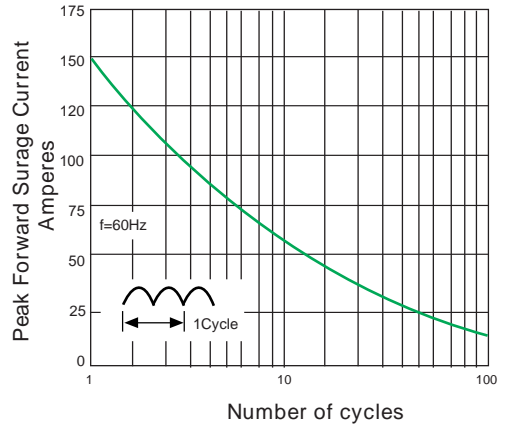


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

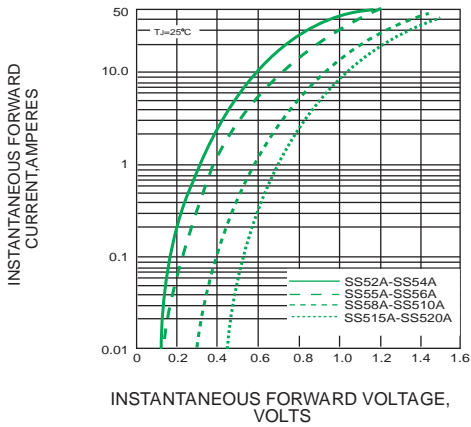
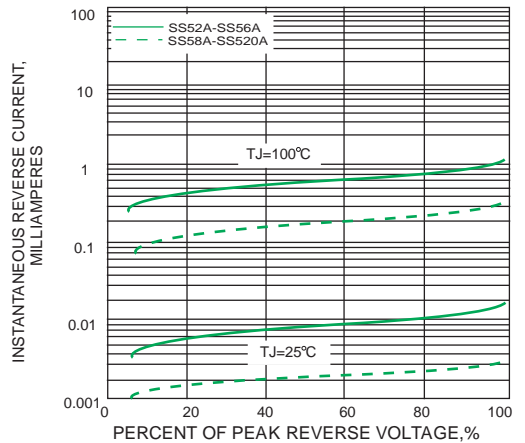
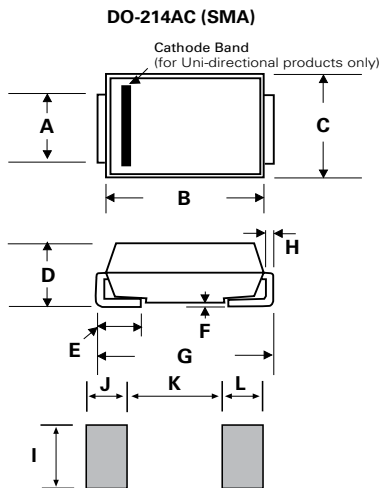


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Dimensions

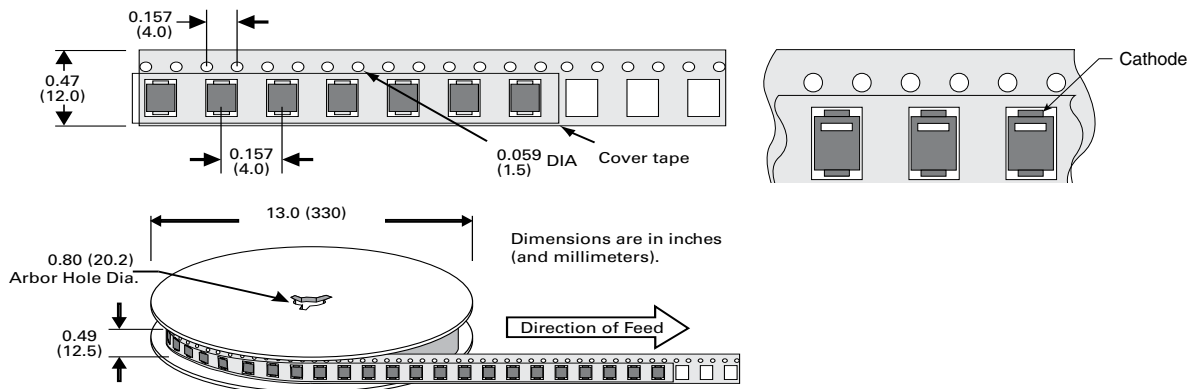


Dimensions	Inches		Millimeters	
	Min	Max	Min	Max
A	0.047	0.067	1.200	1.700
B	0.154	0.185	3.900	4.700
C	0.095	0.114	2.400	2.900
D	0.075	0.096	1.900	2.440
E	0.030	0.060	0.760	1.520
F	-	0.008	-	0.203
G	0.185	0.222	4.700	5.660
H	0.006	0.012	0.152	0.305
I	0.066	-	1.680	-
J	0.068	-	1.720	-
K	-	0.090	-	2.300
L	0.068	-	1.720	-

Ordering Information

Part number	Component Package	Quantity	Packaging Option	Packaging Specification
SS5XXA	DO-214AC	5000	Tape & Reel - 12mm tape/13" reel	EIA STD RS-481

Tape and Reel Specification



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