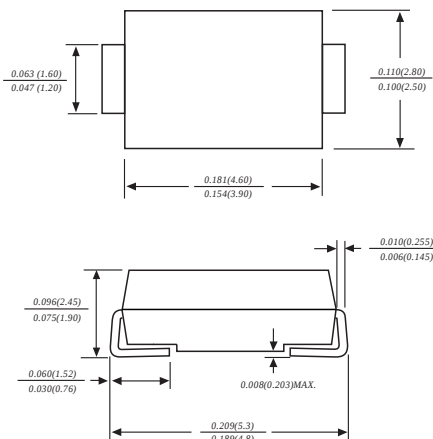


SS12 THRU SS110

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

DO-214AC/SMA



Dimensions in inches and (millimeters)

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

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

Weight: 0.003 ounce, 0.093 grams

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%.

	SYMBOLS	SS12	SS13	SS14	SS15	SS16	SS18	SS110	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	80	100	VOLTS
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	56	70	VOLTS
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	80	100	VOLTS
Maximum average forward rectified current at T _L (see fig.1)	I _(AV)	1.0							Amp
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	30.0							Amps
Maximum instantaneous forward voltage at 1.0A	V _F	0.55			0.70		0.85		Volts
Maximum DC reverse current at rated DC blocking voltage	I _R	0.5							mA
TA=25°C TA=100°C		6.0			5.0				
Typical junction capacitance (NOTE 1)	C _J	110			90				pF
Typical thermal resistance (NOTE 2)	R _{qJA}	88.0							°C/W
Operating junction temperature range	T _J	-65 to +150					-65 to +175		°C
Storage temperature range	T _{STG}	-65 to +150							°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

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

FIG. 1- FORWARD CURRENT DERATING CURVE

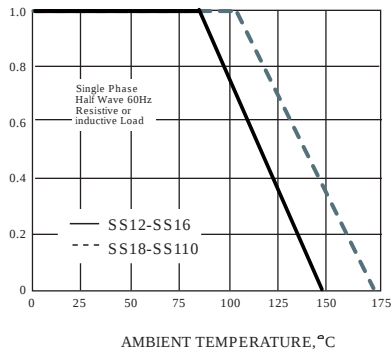


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

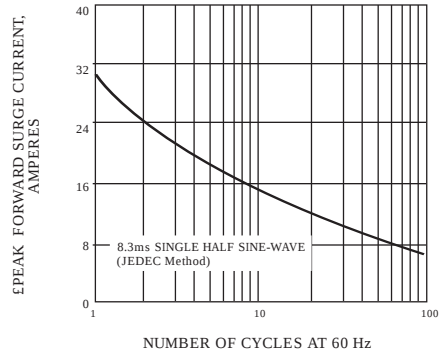


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

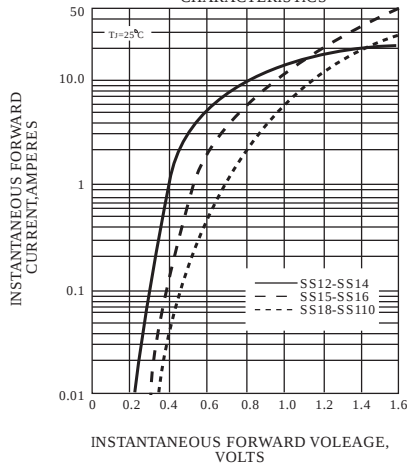


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

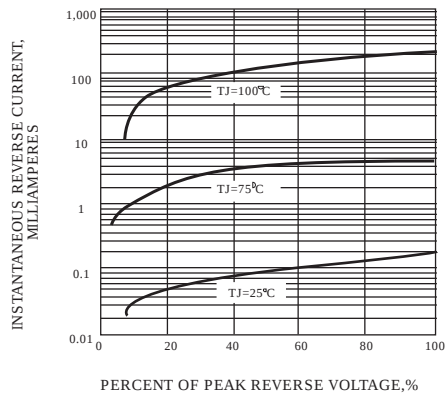


FIG. 5-TYPICAL JUNCTION CAPACITANCE

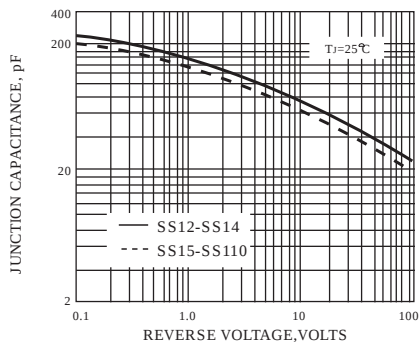
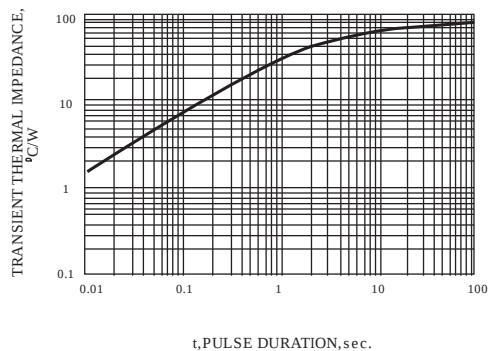
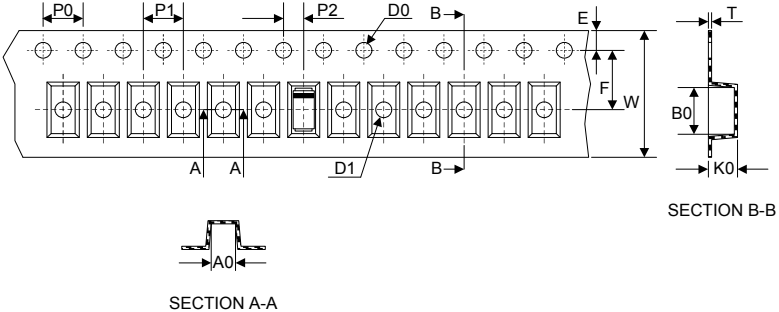
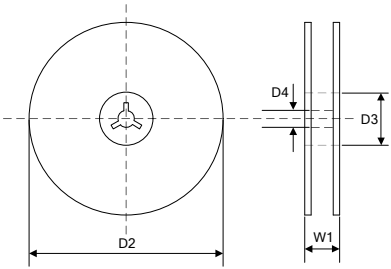
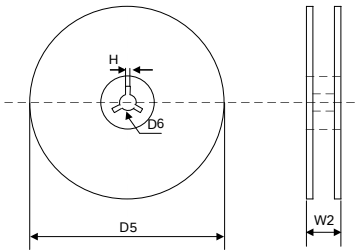


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE



Packaging

Tape  SECTION A-A SECTION B-B	<table> <tr> <th>Symbol</th><th>Dimension (mm)</th></tr> <tr> <td>W</td><td>12.00±0.20</td></tr> <tr> <td>P0</td><td>4.00±0.10</td></tr> <tr> <td>P1</td><td>4.00±0.10</td></tr> <tr> <td>P2</td><td>2.00±0.10</td></tr> <tr> <td>D0</td><td>Φ1.5±0.10</td></tr> <tr> <td>D1</td><td>Φ1.5±0.10</td></tr> <tr> <td>E</td><td>1.75±0.10</td></tr> <tr> <td>F</td><td>5.50±0.05</td></tr> <tr> <td>A0</td><td>2.79±0.10</td></tr> <tr> <td>B0</td><td>5.33±0.10</td></tr> <tr> <td>K0</td><td>2.55±0.15</td></tr> <tr> <td>T</td><td>0.25±0.05</td></tr> </table>	Symbol	Dimension (mm)	W	12.00±0.20	P0	4.00±0.10	P1	4.00±0.10	P2	2.00±0.10	D0	Φ1.5±0.10	D1	Φ1.5±0.10	E	1.75±0.10	F	5.50±0.05	A0	2.79±0.10	B0	5.33±0.10	K0	2.55±0.15	T	0.25±0.05
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B0	5.33±0.10																										
K0	2.55±0.15																										
T	0.25±0.05																										
7" Reel 	<table> <tr> <td>D2</td><td>Φ178.0±2.0</td></tr> <tr> <td>D3</td><td>Φ50.0Min.</td></tr> <tr> <td>D4</td><td>Φ13.0±0.5</td></tr> <tr> <td>W1</td><td>16.0±2.0</td></tr> <tr> <td colspan="2">Quantity: 2000PCS</td></tr> </table>	D2	Φ178.0±2.0	D3	Φ50.0Min.	D4	Φ13.0±0.5	W1	16.0±2.0	Quantity: 2000PCS																	
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D4	Φ13.0±0.5																										
W1	16.0±2.0																										
Quantity: 2000PCS																											
11" Reel 	<table> <tr> <td>D5</td><td>Φ280.0±2.0</td></tr> <tr> <td>D6</td><td>Φ13.5±0.5</td></tr> <tr> <td>H</td><td>2.5±1.0</td></tr> <tr> <td>W2</td><td>16.0±2.0</td></tr> <tr> <td colspan="2">Quantity: 5000PCS</td></tr> </table>	D5	Φ280.0±2.0	D6	Φ13.5±0.5	H	2.5±1.0	W2	16.0±2.0	Quantity: 5000PCS																	
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H	2.5±1.0																										
W2	16.0±2.0																										
Quantity: 5000PCS																											

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