



SS12U THRU SS120U

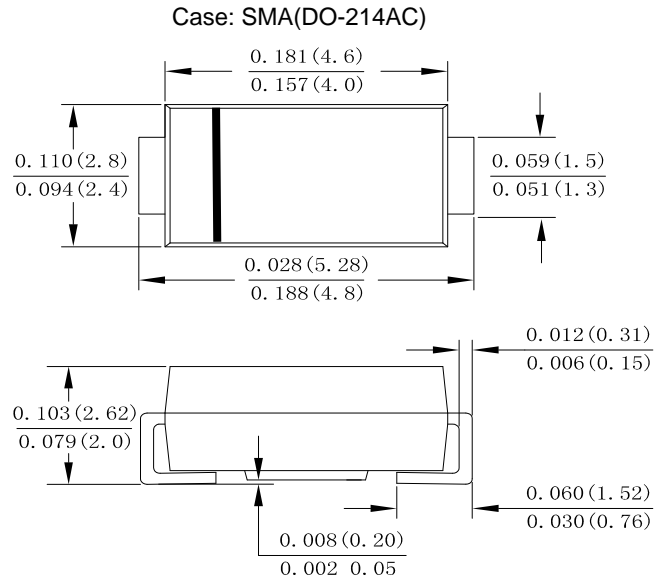
1.0AMP Surface Mount Schottky Barrier Rectifier

Features

- Schottky Barrier Chip
- Low Power Loss, High Efficiency
- Ideally Suited for Automatic Assembly
- Surge Overload Rating to 35A Peak
- Plastic Case Material has UL Flammability Classification Rating 94V-0

Mechanical Data

- Case: Molded plastic SMA
- Terminals: Plated leads solderable per MIL-STD-750, Method 2026 guaranteed
- Polarity: Color band denotes cathode end
- Mounting Position: Any
- Making: Type Number



Dimensions in inches and (millimeters)

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified

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

For capacitive load derate current by 20%

Type Number	SYMBOL	SS 12U	SS 13U	SS 14U	SS 145U	SS 15U	SS 16U	SS 18U	SS 110U	SS 115U	SS 120U	Unit
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	45	50	60	80	100	150	200	V
Maximum RMS Voltage	V_{RMS}	14	21	28	31	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	V_{DC}	20	30	40	45	50	60	80	100	150	200	V
Average Rectified Output Current @ $T_L = 100^\circ\text{C}$	$I_F(AV)$	1.0										A
Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	35										A
Rating for fusing ($t < 8.3\text{ms}$)	I^2t	5.08										A^2s
Forward Voltage @ $I_F = 1.0\text{A}$	V_{FM}	0.50		0.67		0.82		0.9				V
Peak Reverse Current @ $T_A = 25^\circ\text{C}$	I_R	0.1					0.05					mA
At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$		10					5					
Typical Junction Capacitance (Note 1)	C_J	50					35					pF
Typical Thermal Resistance per leg (Note 2)	$R_{\theta JL}$	75										$^\circ\text{C}/\text{W}$
Operating Temperature Range	T_J	-55 to +150										$^\circ\text{C}$
Storage Temperature Range	T_{STG}	-55 to +150										$^\circ\text{C}$

Note: 1. Measured at 1.0 MHz and Applied reverse Voltage of 4.0V D.C

2. Device mounted on FR-4 substrate, 1"×1", 2oz, single-sided, PC boards with 0.1"×0.15" copper pad.



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Fig. 1 Forward Current Derating Curve

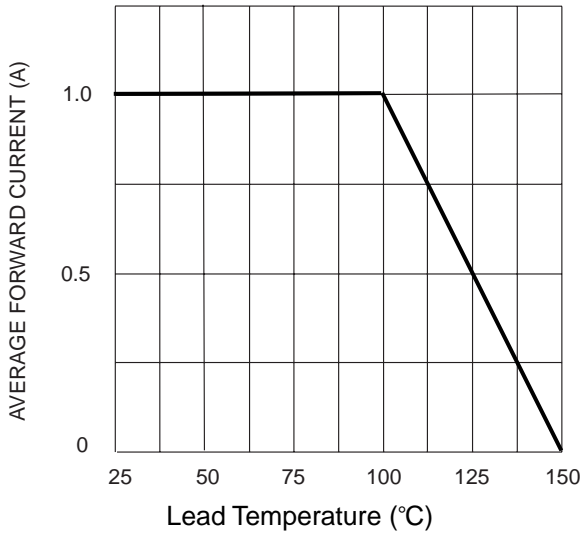


Fig. 2 Typ. Forward Characteristics

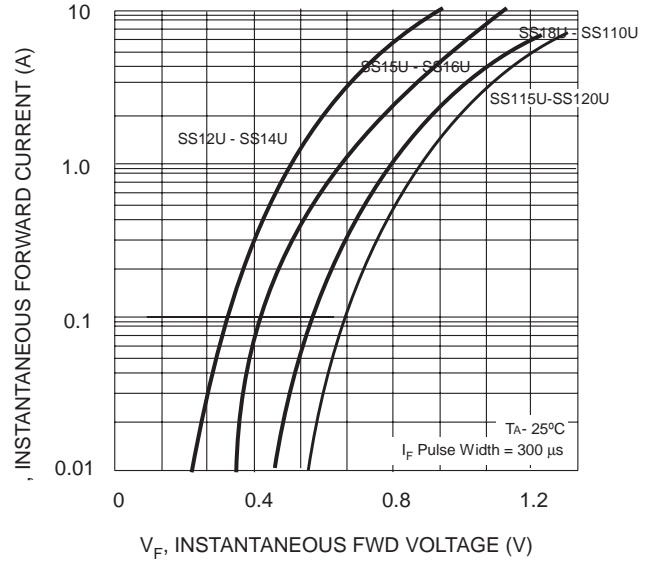


Fig. 3 Max Non-Repetitive Peak Fwd Surge Current

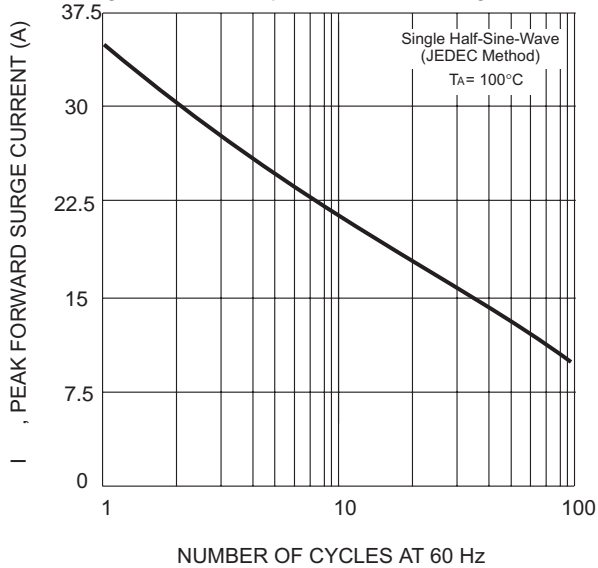
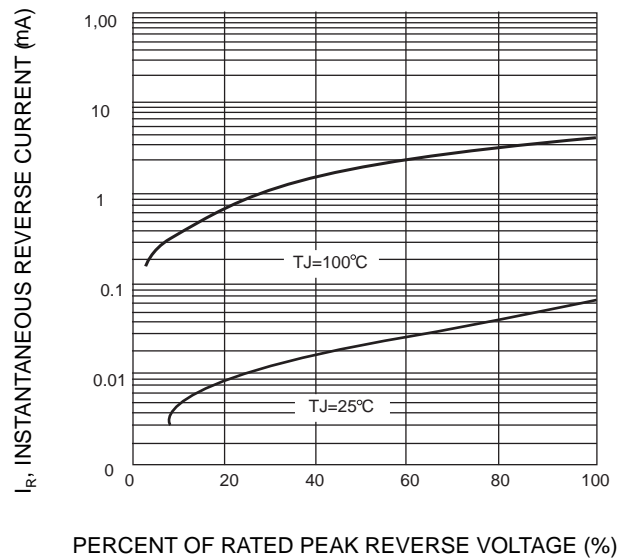
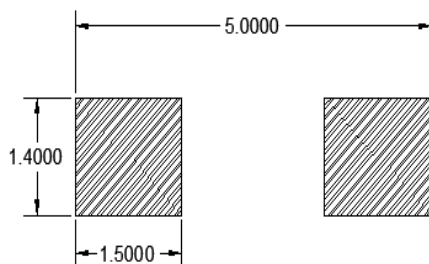


Fig. 4 Typical Reverse Characteristics (per element)



SMA PAD LAYOUT





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