



# DSS12U THRU DSS125U

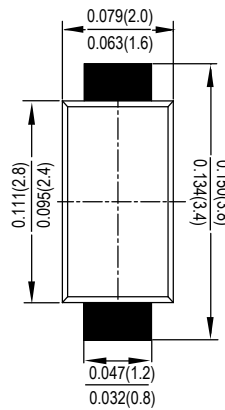
SINGLE PHASE 1.0AMP SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

## Features

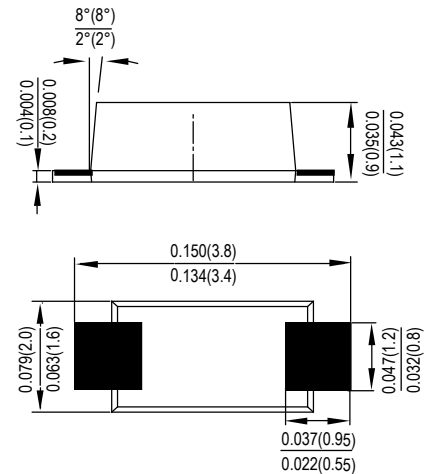
- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction, majority carrier conduction
- Low power loss, high efficiency
- High temperature soldering guaranteed: 260 °C/10 seconds, 0.375" (9.5mm) lead length, 5 lbs. (2.3kg) tension

## Mechanical Data

- Case: SOD-123FL, molded plastic
- Terminals: plated leads solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Mounting position: Any



## SOD-123FL



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	DSS12U	DSS13U	DSS14U	DSS15U	DSS16U	DSS18U	DSS110U	DSS115U	DSS120U	DSS125U	UNITS	
	Code	D12U	D13U	D14U	D15U	D16U	D18U	D110U	D115U	D120U	D125U		
Peak Repetitive Reverse Voltage	$V_{RRM}$											V	
Working Peak Reverse Voltage	$V_{RWM}$	20	30	40	50	60	80	100	150	200	250		
DC Blocking Voltage	$V_{DC}$												
RMS Reverse Voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	140	175	V	
Average Rectified Output Current @ $T_A = 90^\circ\text{C}$	$I_o$	1.0										A	
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	40										A	
Forward Voltage per element @ $I_F = 1.0\text{A}$	$V_{FM}$	0.50			0.67		0.8		0.90		0.92	V	
Peak Reverse Current @ $T_A = 25^\circ\text{C}$ At Rated DC Blocking Voltage @ $T_A = 100^\circ\text{C}$	$I_R$	0.1					0.05					mA	
		10					5						
Typical junction capacitance (NOTE 1)	$C_J$	110				80							pF
Operating junction temperature range	$T_J$	-55to+150										°C	
Operating and Storage Temperature Range	$T_{STG}$	-55to+150										°C	

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



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FIG. 1- FORWARD CURRENT DERATING CURVE

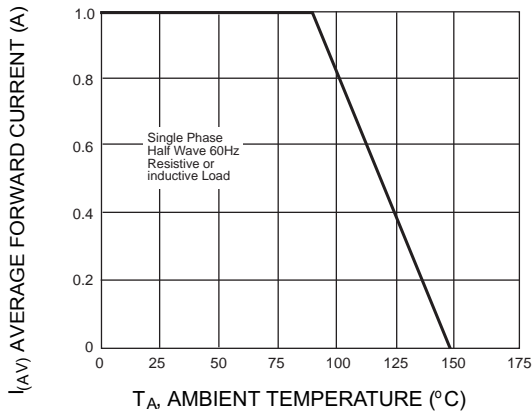


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

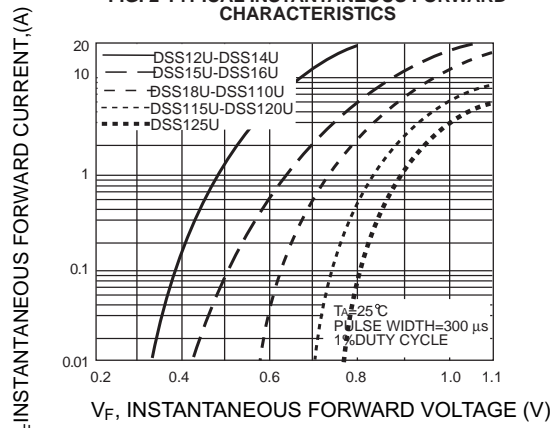


FIG. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

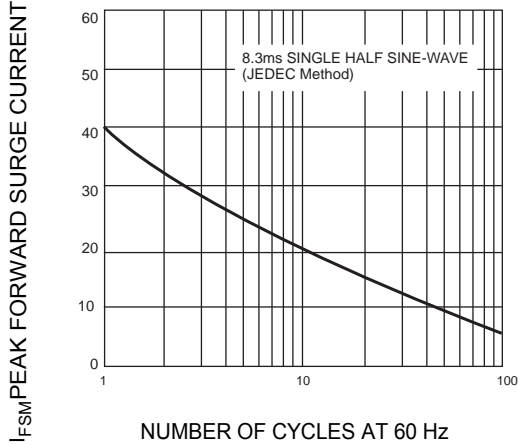


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

