



# DSS22U THRU DSS220U

Single Phase 2.0AMP Surface Mount Schottky Barrier Rectifier

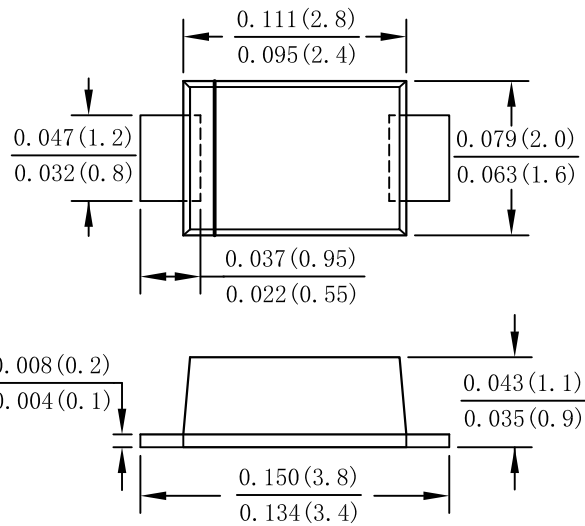
## Features

- 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

Case: 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	DSS22U	DSS23U	DSS24U	DSS25U	DSS26U	DSS28U	DSS210U	DSS215U	DSS220U	UNITS
	Code	D22U	D23U	D24U	D25U	D26U	D28U	D210U	D215U	D220U	
Peak Repetitive Reverse Voltage	$V_{RRM}$										V
Working Peak Reverse Voltage	$V_{RWM}$	20	30	40	50	60	80	100	150	200	
DC Blocking Voltage	$V_{DC}$										
RMS Reverse Voltage	$V_{RMS}$	14	21	28	35	42	56	70	105	140	V
Average Rectified Output Current @ $T_L = 90^\circ C$	$I_{F(AV)}$	2.0									A
Non-Repetitive Peak Forward Surge Current 8.3ms Single half sine-wave superimposed on rated load (JEDEC Method)	$I_{FSM}$	60									A
$I^2t$ Rating for Fusing ( $t < 8.3ms$ )	$I^2t$	14.940									A <sup>2</sup> s
Forward Voltage per element @ $I_F = 2.0A$	$V_{FM}$	0.5			0.67		0.8		0.90		V
Peak Reverse Current @ $T_A = 25^\circ C$ At Rated DC Blocking Voltage @ $T_A = 100^\circ C$	$I_R$	0.1				0.05				mA	
		10				5					
Typical Junction Capacitance (Note 1)	$C_J$	100				50				pF	
Typical thermal resistance (NOTE 2)	$R_{\theta JA}$	75									°C/W
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.

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

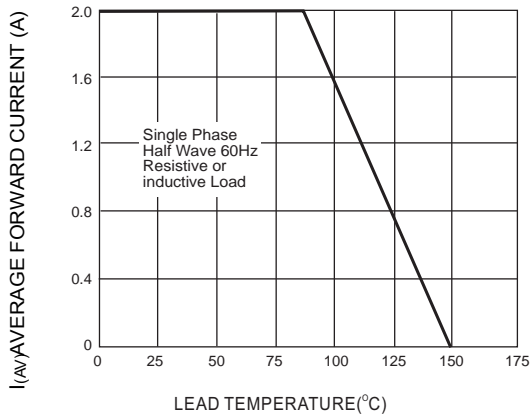


FIG. 2-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

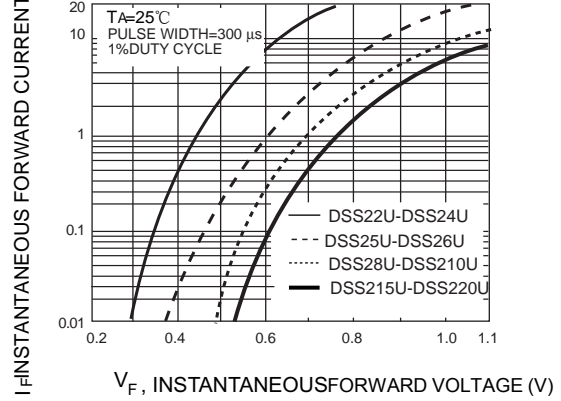


FIG. 3-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

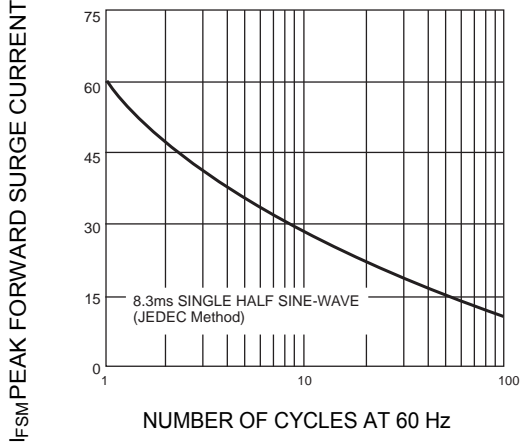


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

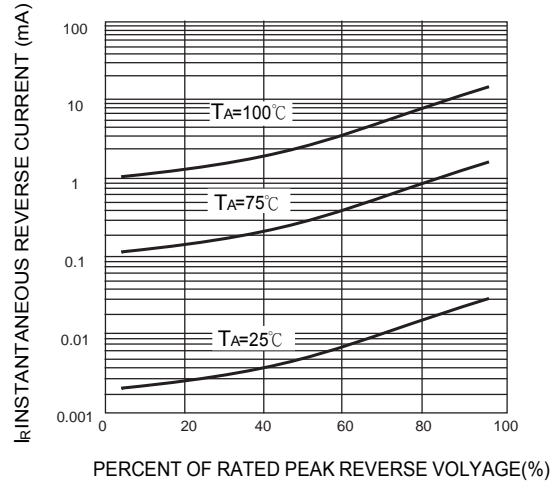
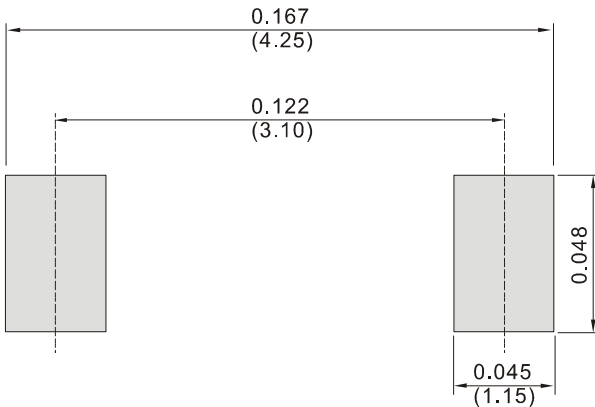


Fig.5 TYPICAL CAPACITANCE





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