

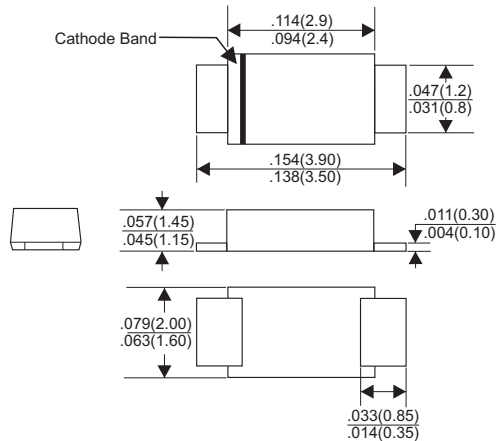


DSS12 THER DSS120

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIERS

Reverse Voltage - 20 to 200 Volts Forward Current - 1.0 Ampere

SOD-123FL



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 0.375"(9.5mm) lead length,
5 lbs.(2.3kg) tension

MECHANICAL DATA

- * Case: Molded plastic
- * Terminals: leads solderable per MIL-STD-750, Method 2026
- * Polarity: Color band denotes cathode end
- * Mounting position: Any

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating 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	DSS 12	DSS 13	DSS 14	DSS 15	DSS 16	DSS 18	DSS 110	DSS 115	DSS 120	UNITS
Maximum Recurrent Peak Reverse Voltage	20	30	40	50	60	80	100	150	200	V
Maximum RMS Voltage	14	21	28	35	42	56	70	105	140	V
Maximum DC Blocking Voltage	20	30	40	50	60	80	100	150	200	V
Maximum Average Forward Rectified Current See Fig. 1	1.0									A
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	25									A
Maximum Instantaneous Forward Voltage at 1.0A	0.55			0.70		0.85		0.92		V
Maximum DC Reverse Current Ta=25°C	0.05									mA
at Rated DC Blocking Voltage Ta=100°C	10									mA
Typical Junction Capacitance (Note1)	110			90						pF
Typical Thermal Resistance RθJA (Note 2)	80									°C/W
Operating Temperature Range Tj	-65 — +125			-65 — +150						°C
Storage Temperature Range Tstg	-65 — +150									°C
Marking code	D12/S12	D13/S13	D14/S14	D15/S15	D16/S16	D18/S18	D110/S110	D115/S115	D120/S120	

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient Vertical PC Board Mounting 0.5"(12.7mm) Lead Length.

RATING AND CHARACTERISTIC CURVES (DSS12 THRU DSS120)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

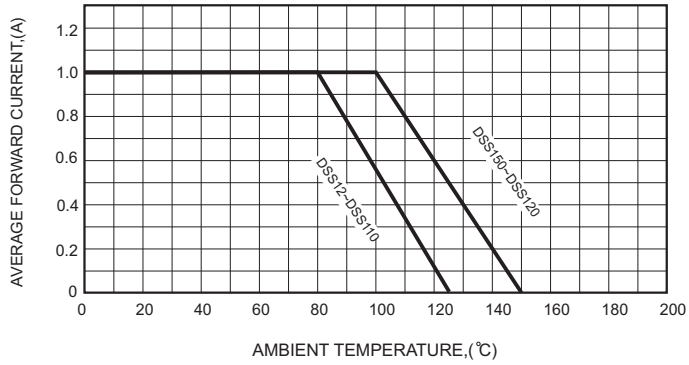


FIG.2-TYPICAL FORWARD CHARACTERISTICS

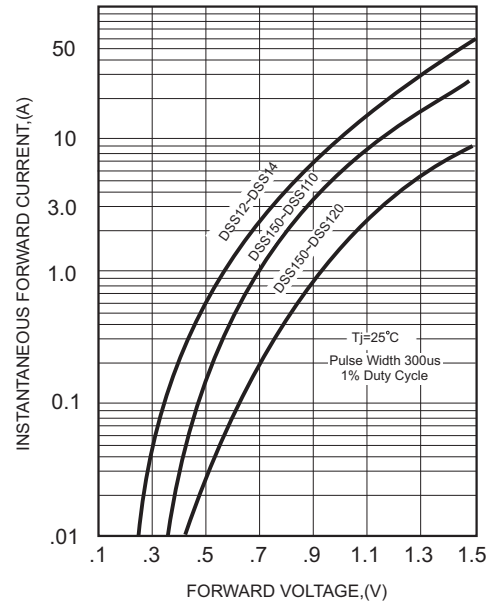


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

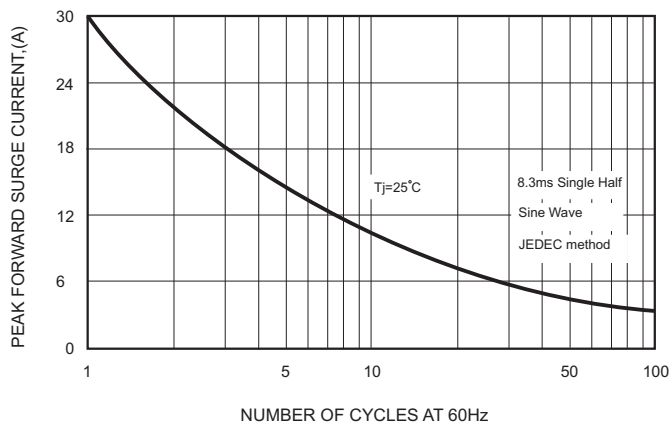


FIG.4-TYPICAL JUNCTION CAPACITANCE

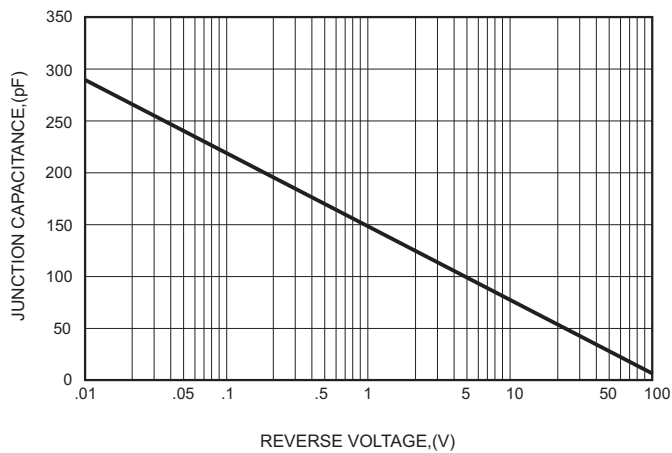


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

