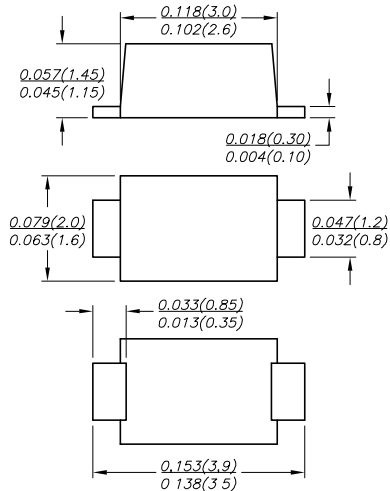


DSS12 THRU DSS110

SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

Reverse Voltage - 20 to 100 Volts Forward Current - 1.0 Ampere

SOD-123FL



Dimensions in inches and (millimeters)

FEATURES

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Metal silicon junction, majority carrier conduction
- ◆ Low power loss, high efficiency
- ◆ High forward surge current capability
- ◆ 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 body

Terminals: Solderable per MIL-STD-750, Method 2026

Polarity: Color band denotes cathode end

Mounting Position: Any

Weight: 0.0007 ounce, 0.02 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	DSS12	DSS13	DSS14	DSS15	DSS16	DSS17	DSS18	DSS19	DSS110	UNITS
Maximum repetitive peak reverse voltage	V _{RRM}	20	30	40	50	60	70	80	90	100	V
Maximum RMS voltage	V _{RMS}	14	21	28	35	42	49	56	63	70	V
Maximum DC blocking voltage	V _{DC}	20	30	40	50	60	70	80	90	100	V
Maximum average forward rectified current	I _(AV)	1.0									A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	25.0									A
Maximum instantaneous forward voltage at 1.0A	V _F	0.55			0.70		0.85				V
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =100°C	I _R	0.5					0.1				mA
		10.0					5.0				
Typical junction capacitance (NOTE 1)	C _J	110			80						pF
Typical thermal resistance (NOTE 2)	R _{θJA}	95									°C/W
Operating junction temperature range	T _J	-55 to +125			-55 to +150						°C
Storage temperature range	T _{STG}	-55 to +150									°C

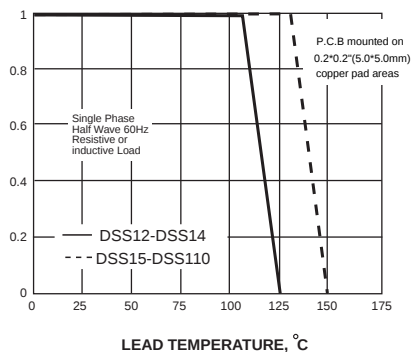
Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. PCB mounted on 0.2*0.2" (5.0*5.0mm) copper pad area.

RATINGS AND CHARACTERISTIC CURVES DSS12 THRU DSS110

AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



PEAK FORWARD SURGE CURRENT,
AMPERES

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

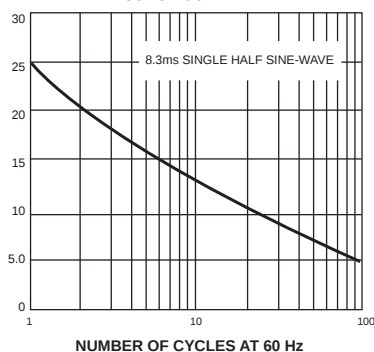
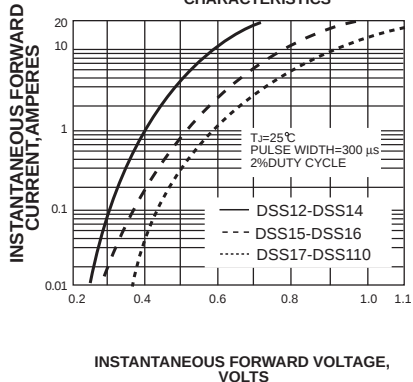


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



INSTANTANEOUS REVERSE CURRENT,
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS

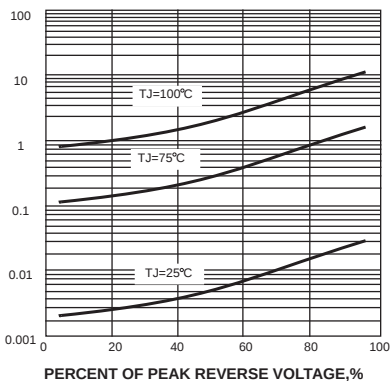


FIG. 5-TYPICAL JUNCTION CAPACITANCE

