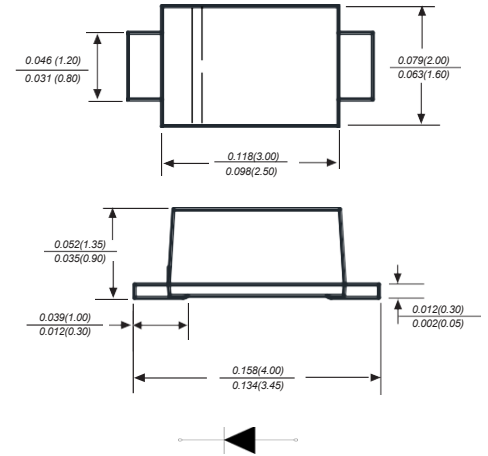


SURFACE MOUNT SCHOTTKY BARRIER RECTIFIER

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 at terminals

SOD-123FL



Dimensions in inches and (millimeters)

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%.

Parameter	SYMBOLS	DSL22	DSL23	DSL24	DSL25	DSL26	DSL27	DSL28	DSL29	DSL210	UNITS
Marking Code											
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 at TL(see fig.1)	I _(AV)	2.0									A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	40									A
Maximum instantaneous forward voltage at 2.0A	V _F	0.45			0.50		0.70				V
Maximum DC reverse current T _A =25℃ at rated DC blocking voltage T _A =125℃	I _R	0.5					0.2				mA
		10.0					5.0				
Typical junction capacitance (NOTE 1)	C _J	110			80						pF
Typical thermal resistance (NOTE 2)	R _{θJA}	95.0									℃/W
Operating junction temperature range	T _J	-55 to +125					-55 to +150				℃
Storage temperature range	T _{STG}	-55 to +150									℃

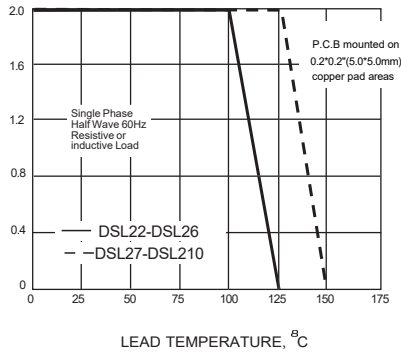
Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

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

Typical Characteristics

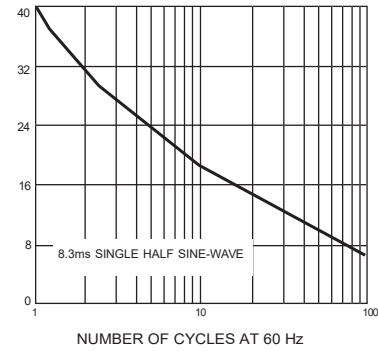
AVERAGE FORWARD RECTIFIED CURRENT,
AMPERES

FIG. 1- FORWARD CURRENT DERATING CURVE



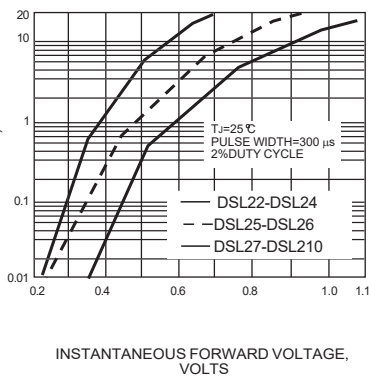
PEAK FORWARD SURGE CURRENT,
AMPERES

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



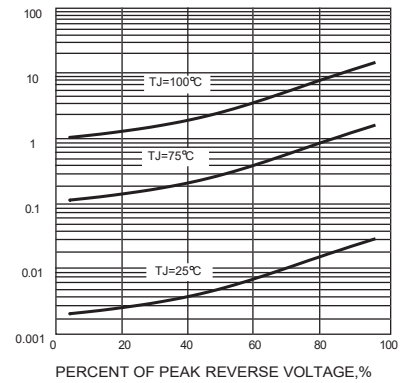
INSTANTANEOUS FORWARD
CURRENT, AMPERES

FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



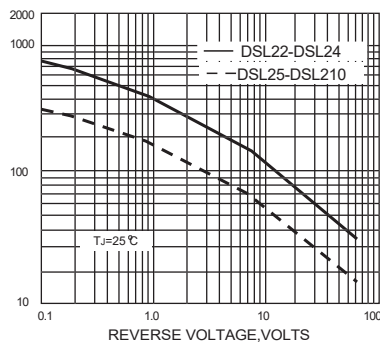
INSTANTANEOUS REVERSE CURRENT,
MILLIAMPERES

FIG. 4-TYPICAL REVERSE CHARACTERISTICS



JUNCTION CAPACITANCE, pF

FIG. 5-TYPICAL JUNCTION CAPACITANCE



The curve above is for reference only.