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PLED

Product data sheet



SOD-123FL

FEATURES

- * Ideal for surface mount applications
- * Easy pick and place
- * Built-in strain relief
- * Low forward voltage drop

MECHANICAL DATA

- * Case: Molded plastic
- * Epoxy: UL 94V-0 rate flame retardant
- * Metallurgically bonded construction
- * 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%.

	P/N	DS12W-MS	DS13W-MS	DS14W-MS	DS15W-MS	DS16W-MS	DS18W-MS	DS19W-MS	DS110W-MS		
	MARK	K12	K13	K14	K15	K16	K18	K19	K110	UNITS	
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	20	30	40	50	60	80	90	100	V	
Maximum RMS Voltage	V_{RMS}	14	21	28	35	42	56	63	70	V	
Maximum DC Blocking Voltage	V_{DC}	20	30	40	50	60	80	90	100	V	
Maximum Average Forward Rectified Current (See Fig. 1)	$I_{(AV)}$	1.0								A	
Peak Forward Surge Current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC method)	I_{FSM}	30								A	
Maximum Instantaneous Forward Voltage at 1.0A	V_F	0.55		0.70		0.85				V	
Maximum DC Reverse Current $T_a=25^\circ\text{C}$	I_R	0.2								mA	
at Rated DC Blocking Voltage $T_a=100^\circ\text{C}$		10								mA	
Typical Junction Capacitance (Note1)	C_J	110								pF	
Operating Temperature Range T_J	T_J	-65 — +125					-65 — +150				$^\circ\text{C}$
Storage Temperature Range T_{STG}	T_{STG}	-65 — +150								$^\circ\text{C}$	

NOTES:

1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.
2. Thermal Resistance Junction to Ambient.

RATING AND CHARACTERISTIC CURVES (K12 THRU K110)

FIG.1-TYPICAL FORWARD CURRENT DERATING CURVE

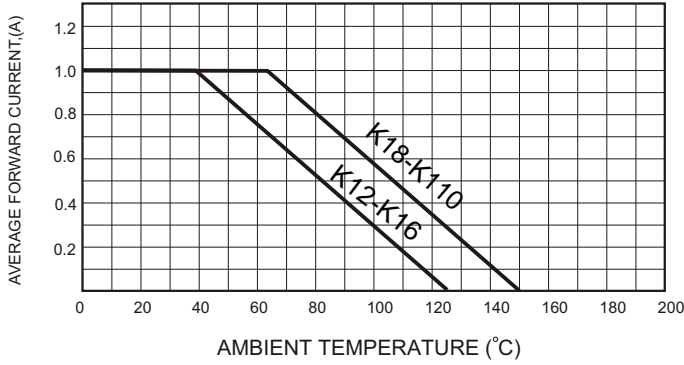


FIG.2-TYPICAL FORWARD CHARACTERISTICS

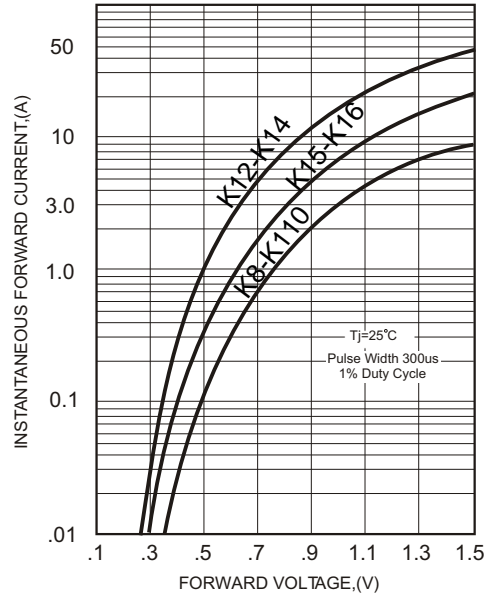


FIG.3-MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

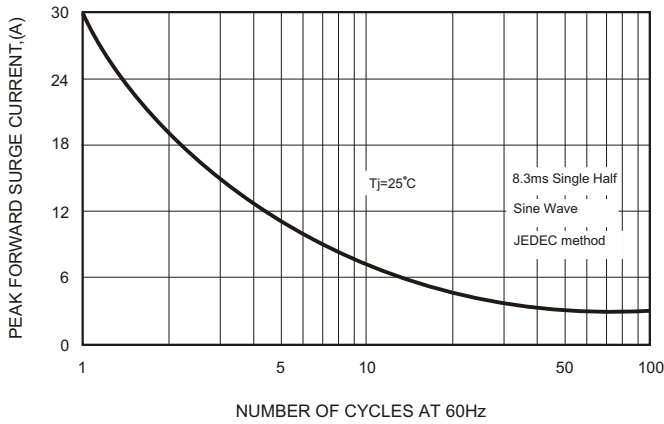


FIG.4-TYPICAL JUNCTION CAPACITANCE

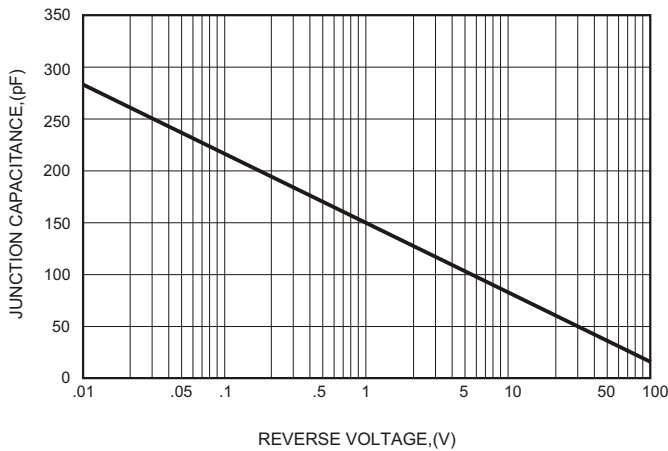
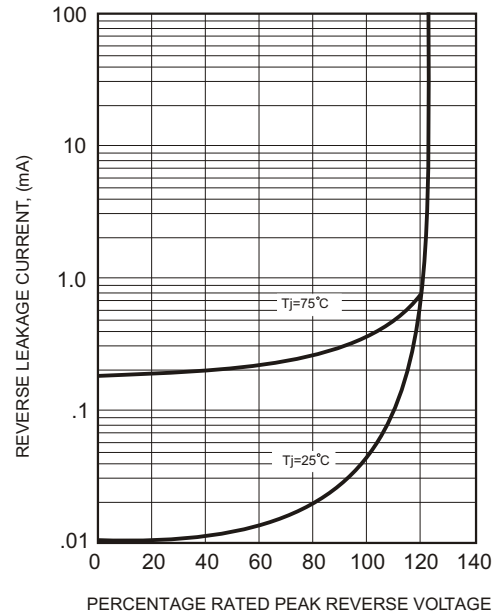
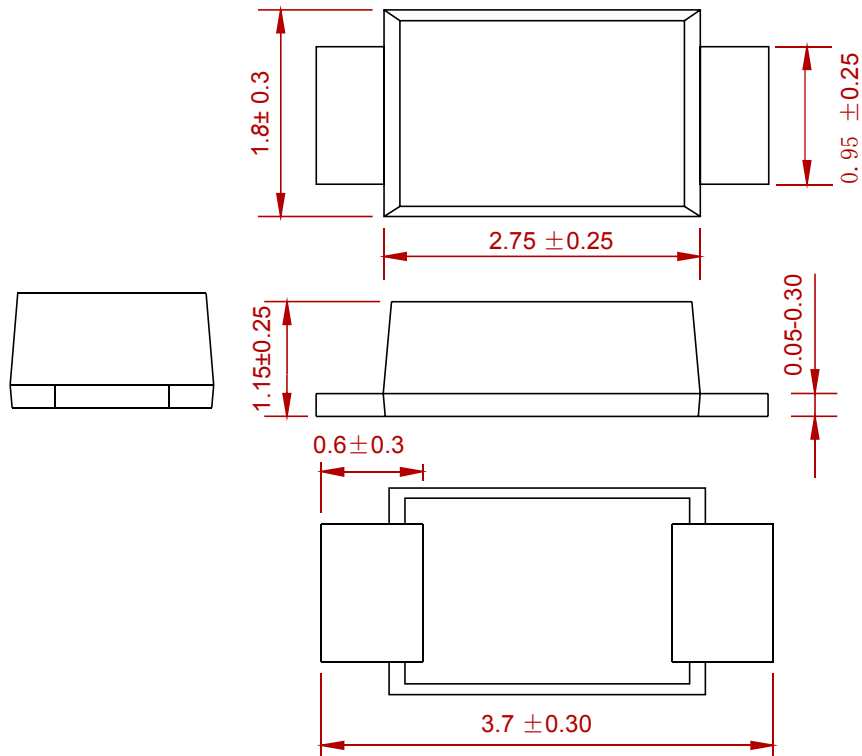


FIG.5 - TYPICAL REVERSE CHARACTERISTICS

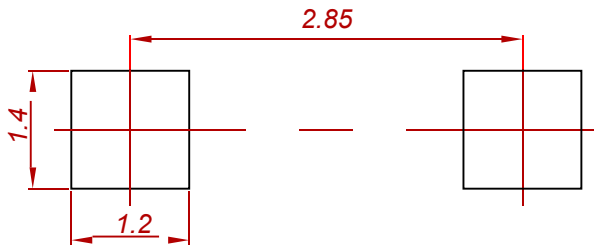


PACKAGE MECHANICAL DATA



Dimensions in millimeters

Suggested Pad Layout



Note:

1. Controlling dimension: in millimeters.
2. General tolerance: ± 0.05 mm.
3. The pad layout is for reference purposes only.

REEL SPECIFICATION

P/N	PKG	QTY
DS12W-MS THRU DS110W-MS	SOD-123FL	3000

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