

ES1AL-ES1JL

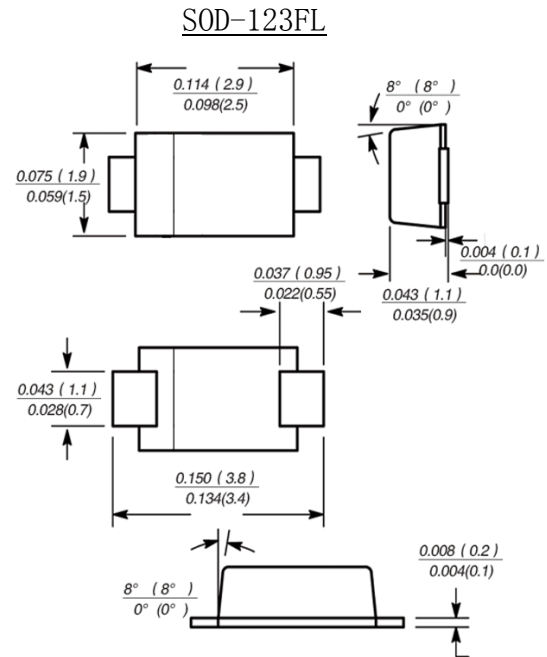
1.0A SURFACE MOUNT SUPER FAST RECTIFIER

Features

- Glass passivated device
- Ideal for surface mounted applications
- Low reverse leakage
- Metallurgically bonded construction
- High temperature soldering guaranteed:
260 C/10 seconds, 0.375" (9.5mm) lead length,
5 lbs. (2.3kg) tension

Mechanical Data

- Terminal: : Plated axial leads, solderable per MIL-STD-750, Method 2026
- Case: : JEDEC SOD-123FL molded plastic body over passivated chip
- Polarity: : Color band denotes cathode end
- Mounting Position: Any



Dimensions in millimetre

Maximum Ratings and Electrical Characteristics @TA=25°C unless otherwise specified

Single Phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

Parameter	Symbol	ES1AL EA	ES1BL EB	ES1CL EC	ES1DL ED	ES1EL EE	ES1GL EG	ES1JL EJ	UNIT
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	150	200	300	400	600	V
Maximum RMS voltage	V_{RMS}	35	70	105	140	210	280	420	V
Maximum DC blocking voltage	V_{DC}	50	100	150	200	300	400	600	V
Maximum Average forward output rectified current	I (AV)	1.0							A
Peak forward surge current 8.3ms single sine-wave superimposed on rated load (JEDEC Method)	IFSM	25							A
Maximum instantaneous forward voltage drop per diode @1.0A	VF	0.95			1.25		1.7		V
Maximum DC reverse current at TA=25°C rated DC blocking voltage per leg TA=100°C	IR	5.0 100							uA
Maximum reverse recovery time (NOTE 1)	trr	35							ns
Typical junction capacitance (NOTE 2)	CJ	10							pF
Typical thermal resistance (NOTE 3)	$R_{\theta JA}$	85							K/W
Operating junction and storage temperature range	T_J, T_{STG}	-55 to +150							°C

Note: 1. Measured with IF=0.5A, IR=1A, Irr=0.25A.

2. Measured at 1MHZ and applied reverse voltage of 4.0V D.C.

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



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FIG. 1- FORWARD CURRENT DERATING CURVE

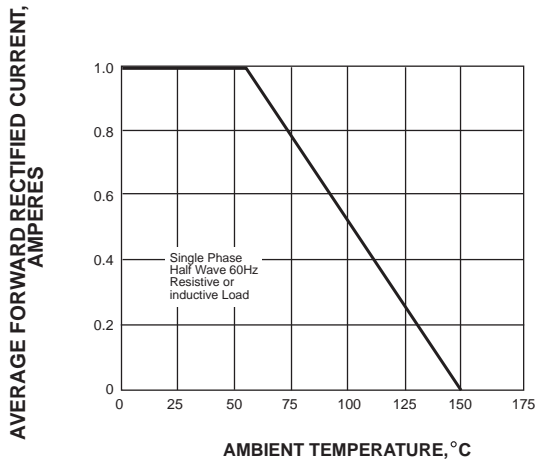


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

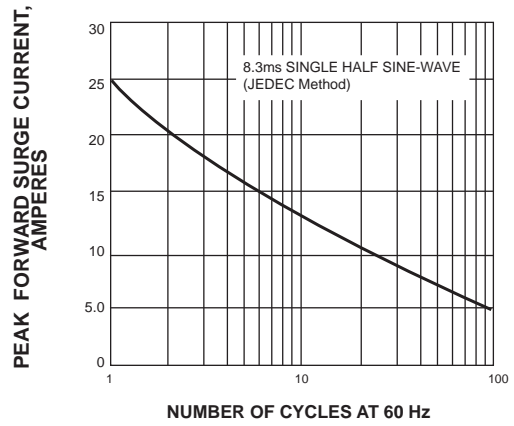


FIG. 3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

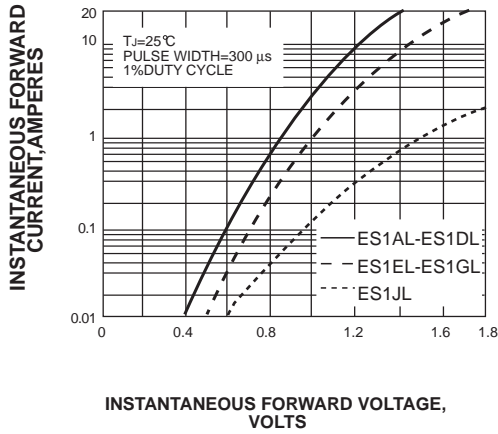


FIG. 4-TYPICAL REVERSE CHARACTERISTICS

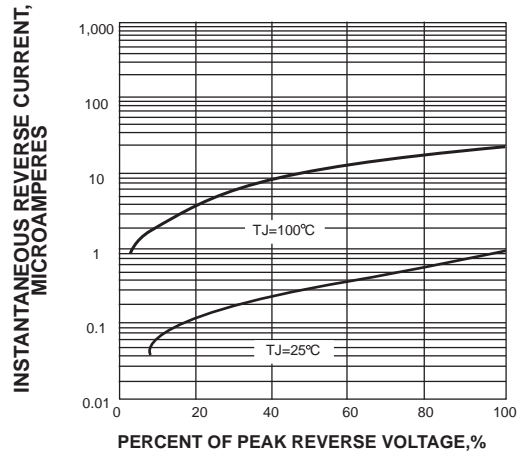


FIG. 5-TYPICAL JUNCTION CAPACITANCE

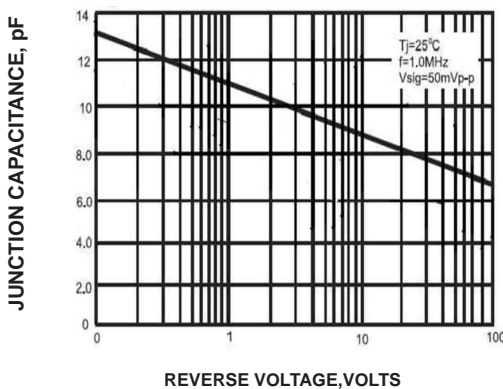


FIG. 6-TYPICAL TRANSIENT THERMAL IMPEDANCE

