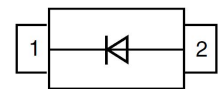
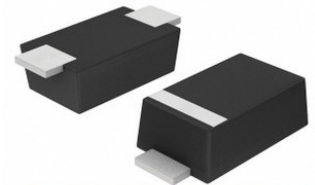


Super Fast Surface Mount Rectifier in SOD-123FL

Features

- For surface mounted application
- Glass passivated junction chip
- Built-in strain relief
- ideal for automated placement
- Superfast recovery time for high efficiency



Mechanical Data

- **Case:** JEDEC SOD-123FL molded plastic
Lead free; RoHS compliant
- **Molding Compound Flammability Rating:**
UL 94 V-0
- **Terminals:** High temperature soldering guaranteed:
260 °C/10 sec. at terminals

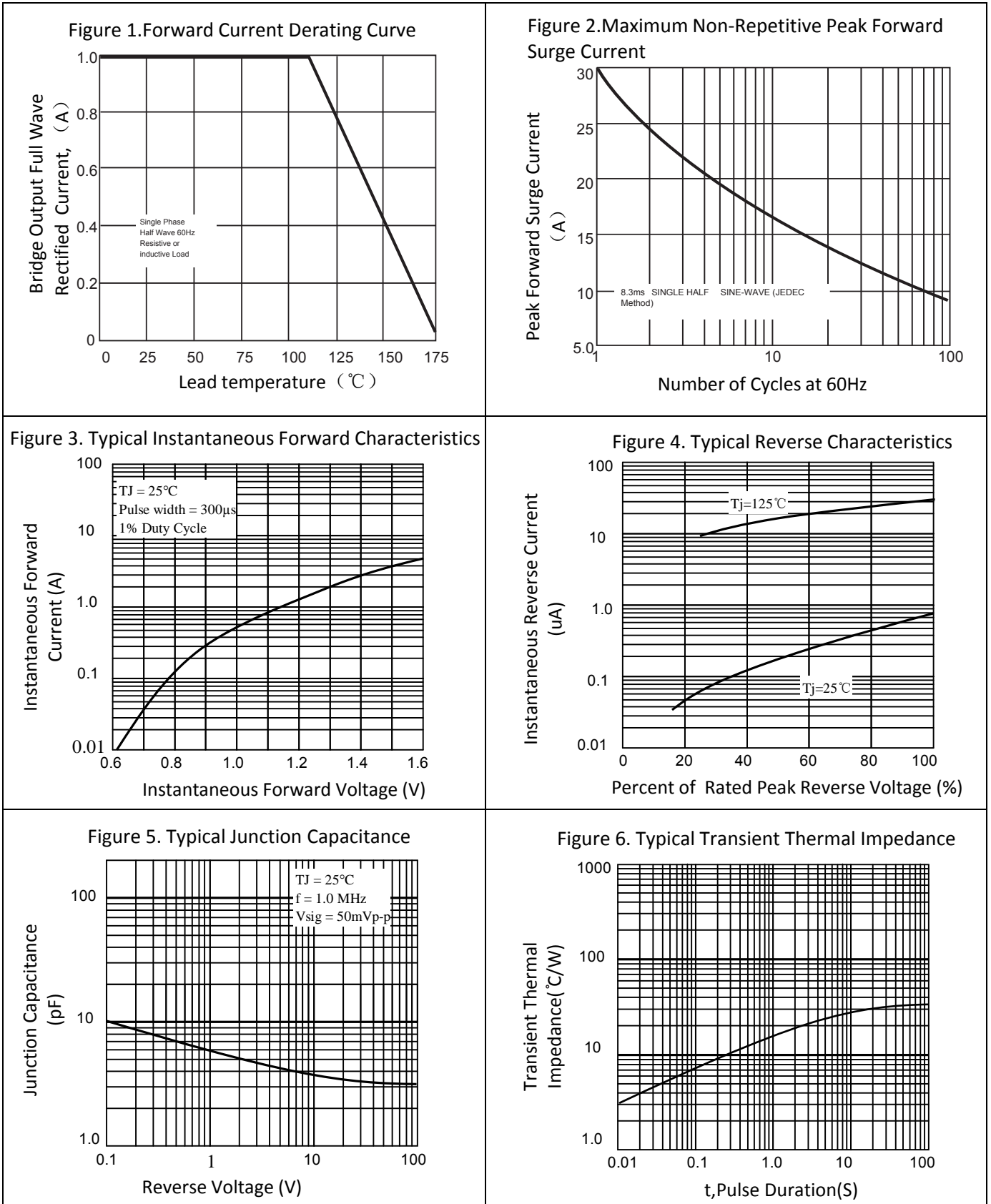
Maximum Ratings And Electrical Characteristics

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%.

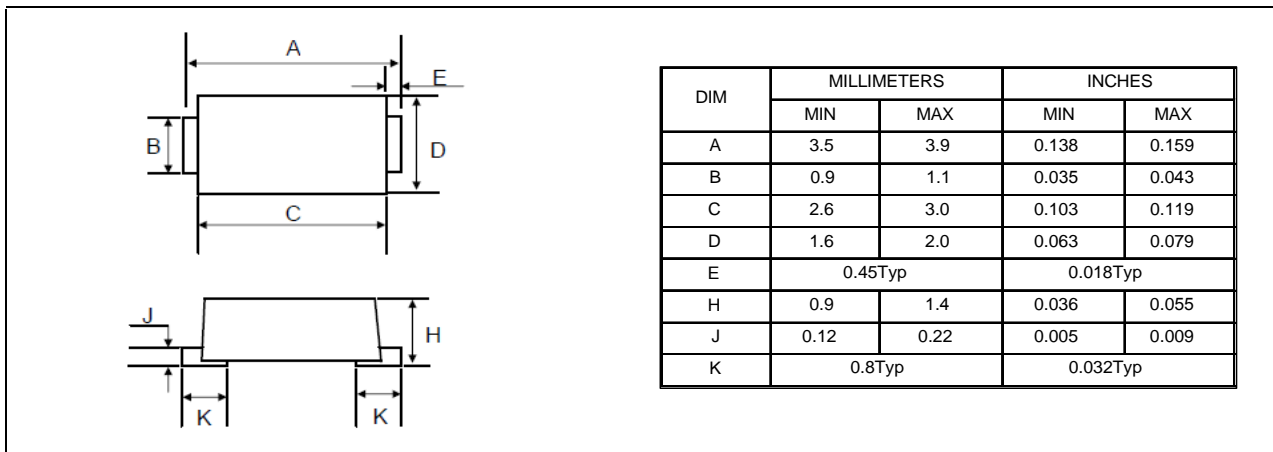
Parameter	Symbols	ES1AFL	ES1BFL	ES1DFL	ES1GFL	ES1JFL	ES1KFL	ES1MFL	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current See Fig. 1 @ $T_c=90^\circ\text{C}$	$I_{(AV)}$	1.0							Amp
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0							Amps
Maximum instantaneous forward voltage @ 1.0A	V_F	0.95			1.3	1.7			Volts
Maximum DC reverse current at rated DC blocking voltage	I_R				5.0 100				μA
Maximum reverse recovery time (Note 1)	t_r				35				nS
Typical junction capacitance (Note 2)	C_j				10				pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$				85.0 35.0				$^\circ\text{C/W}$
Operating temperature range	T_J				-55 to +150				$^\circ\text{C}$
Storage temperature range	T_{STG}				-55 to +150				$^\circ\text{C}$

- Notes:**
1. Reverse Recovery Test Conditions: $I_F=0.5\text{A}$, $I_R=1.0\text{A}$, $I_{RR}=0.25\text{A}$
 2. Measured at 1 MHz and Applied $V_R=4.0$ Volts
 3. Thermal Resistance from Junction to Ambient and from Junction to Lead Mounted on P.C.B. with $0.2" \times 0.2"$ (5.0 x 5.0 mm) Copper Pad Areas

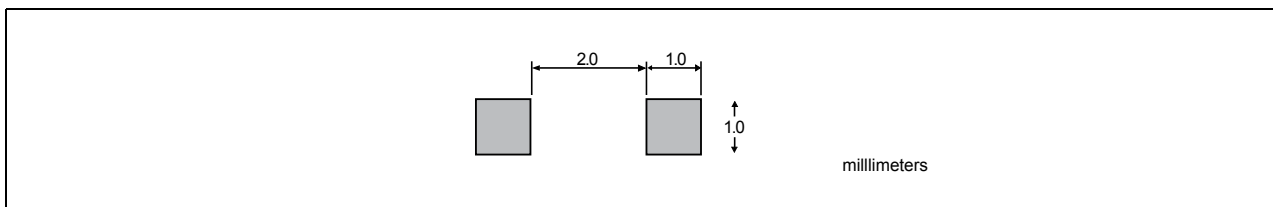
Typical Characteristics ($T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)



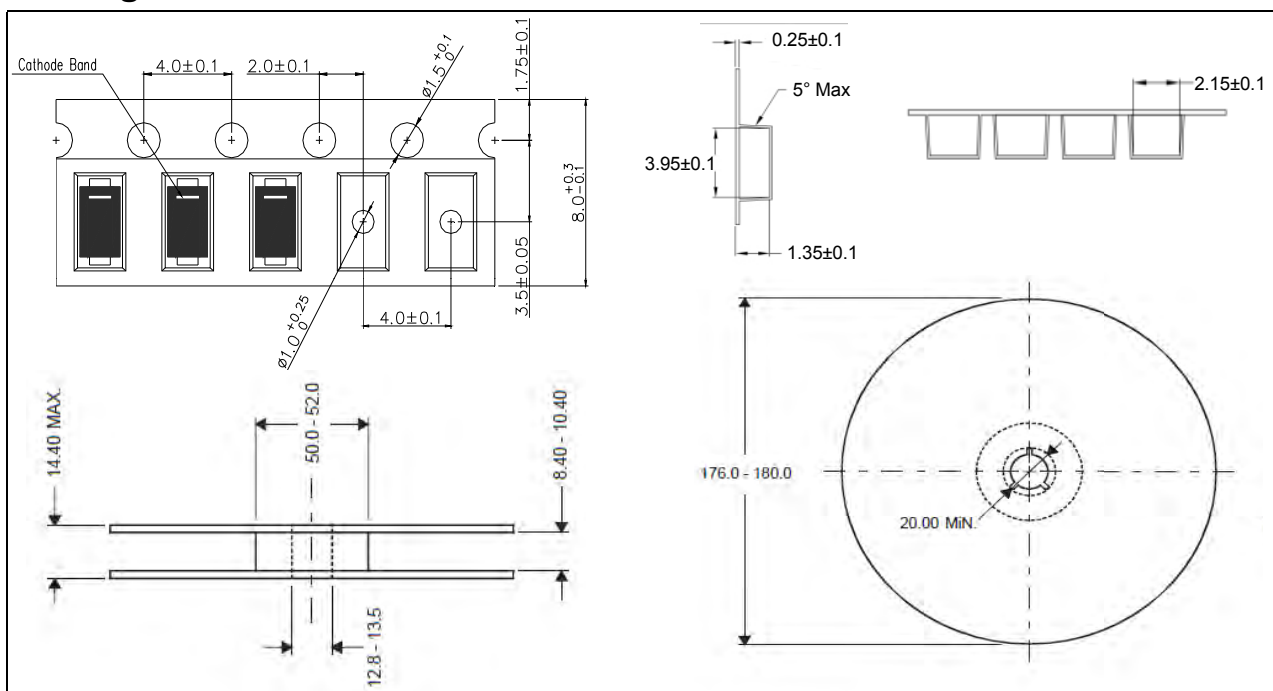
Package Dimensions



Pad Dimensions



Package Information



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
ES1AFL thur ES1MFL	SOD-123FL	Tape and reel	3000pcs / reel	EIA STD RS-481

Revision history

Date	Revision	Changes
23-May-2012	1.0	Initial release

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