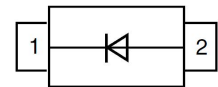


Super Fast Surface Mount Rectifier in SOD-123FL

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

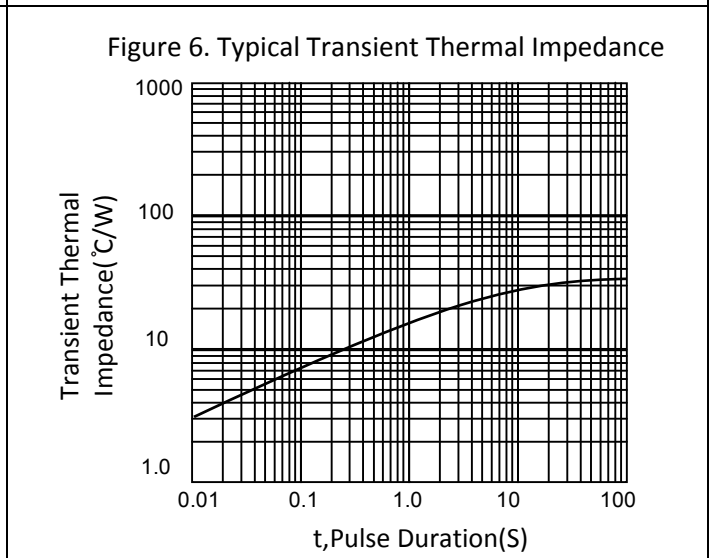
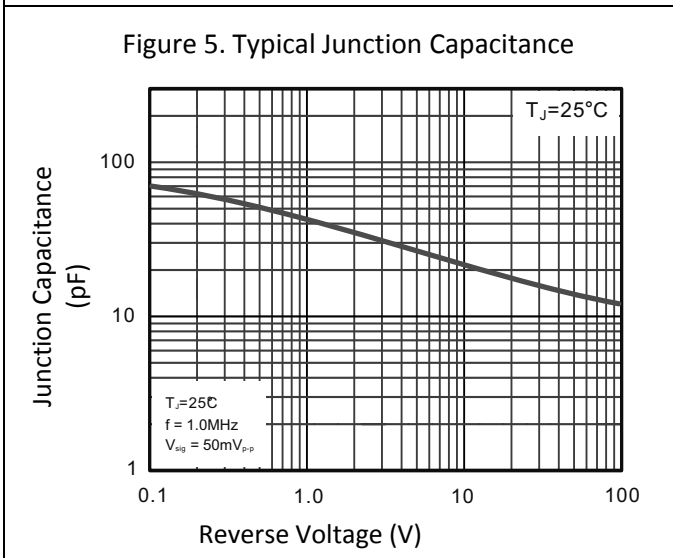
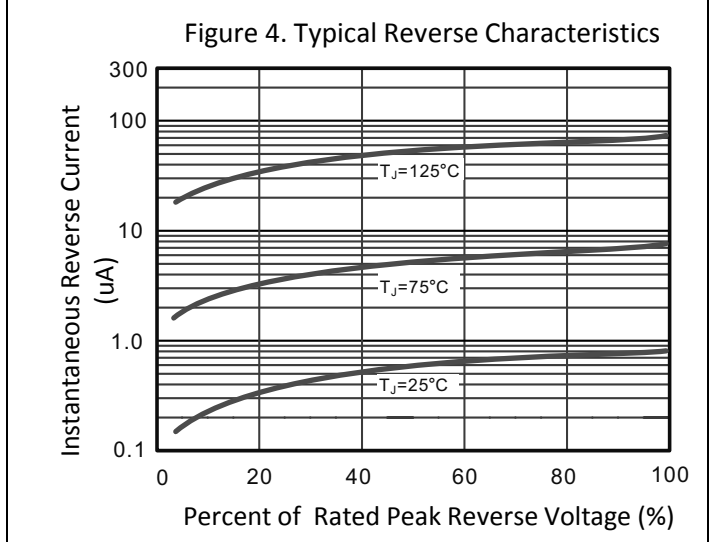
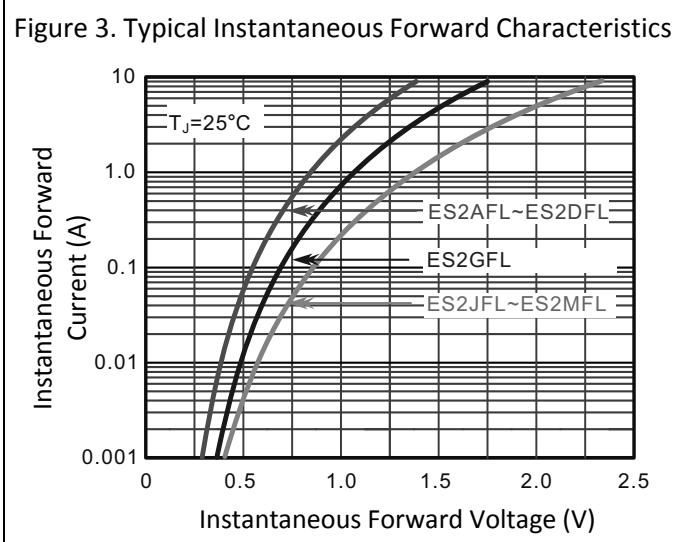
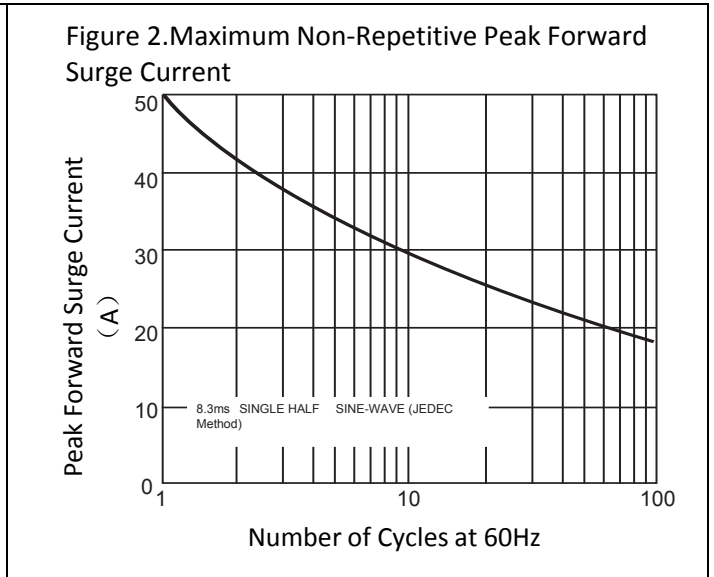
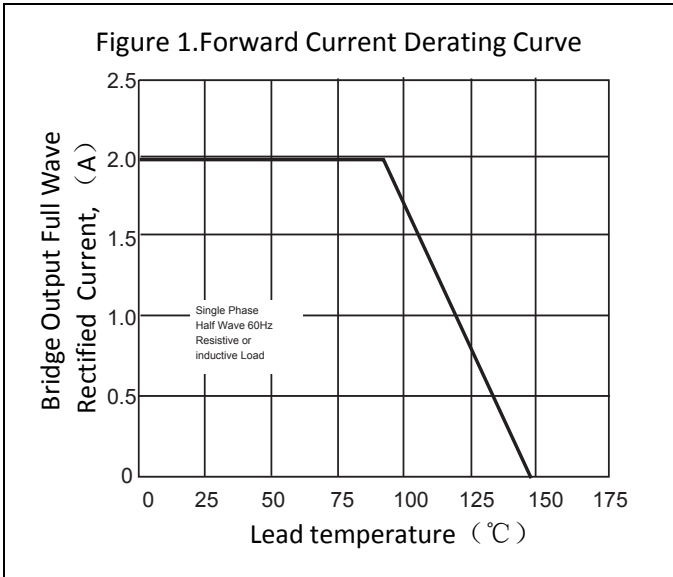
Maximum Ratings And Electrical Characteristics

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%.

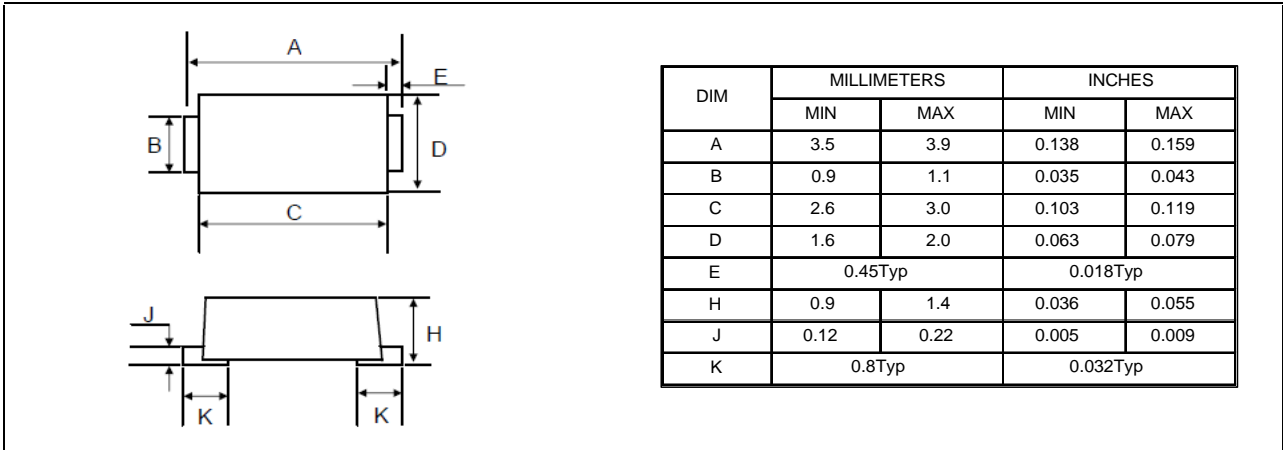
Parameter	Symbols	ES2AFL	ES2BFL	ES2DFL	ES2GFL	ES2JFL	ES2KFL	ES2MFL	Units
Maximum repetitive peak reverse voltage	V_{RRM}	50	100	200	400	600	800	1000	Volts
Maximum RMS voltage	V_{RMS}	35	70	140	280	420	560	700	Volts
Maximum DC blocking voltage	V_{DC}	50	100	200	400	600	800	1000	Volts
Maximum average forward rectified current See Fig. 1 @ $T_L=90^{\circ}C$	$I_{(AV)}$	2.0							Amp
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	50.0							Amps
Maximum instantaneous forward voltage @ 1.0A	V_F	1.0		1.3		1.7			Volts
Maximum DC reverse current at rated DC blocking voltage	I_R	@ $T_A=25^{\circ}C$ @ $T_A=125^{\circ}C$			5.0 100				μA
Maximum reverse recovery time (Note 1)	t_r	35							nS
Typical junction capacitance (Note 2)	C_J	30							pF
Typical thermal resistance (Note 3)	$R_{\theta JA}$ $R_{\theta JL}$					75.0 22.0			$^{\circ}C/W$
Operating temperature range	T_J	-55 to +150							$^{\circ}C$
Storage temperature range	T_{STG}	-55 to +150							$^{\circ}C$

- Notes:**
1. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $I_{RR}=0.25A$
 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" x 0.2" (5.0 x 5.0 mm) Copper Pad Areas

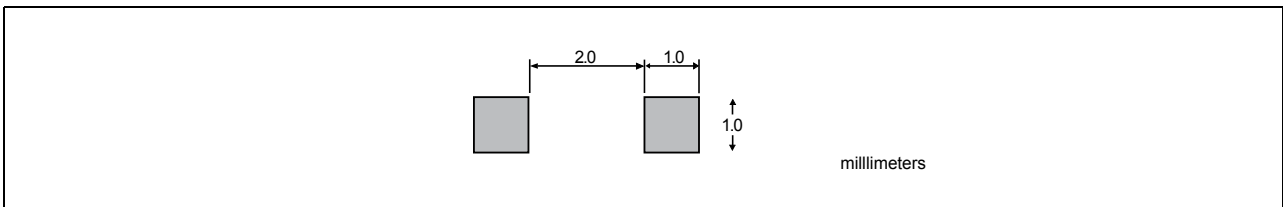
Typical Characteristics ($T_{amb} = 25\text{ }^{\circ}\text{C}$ unless otherwise specified)



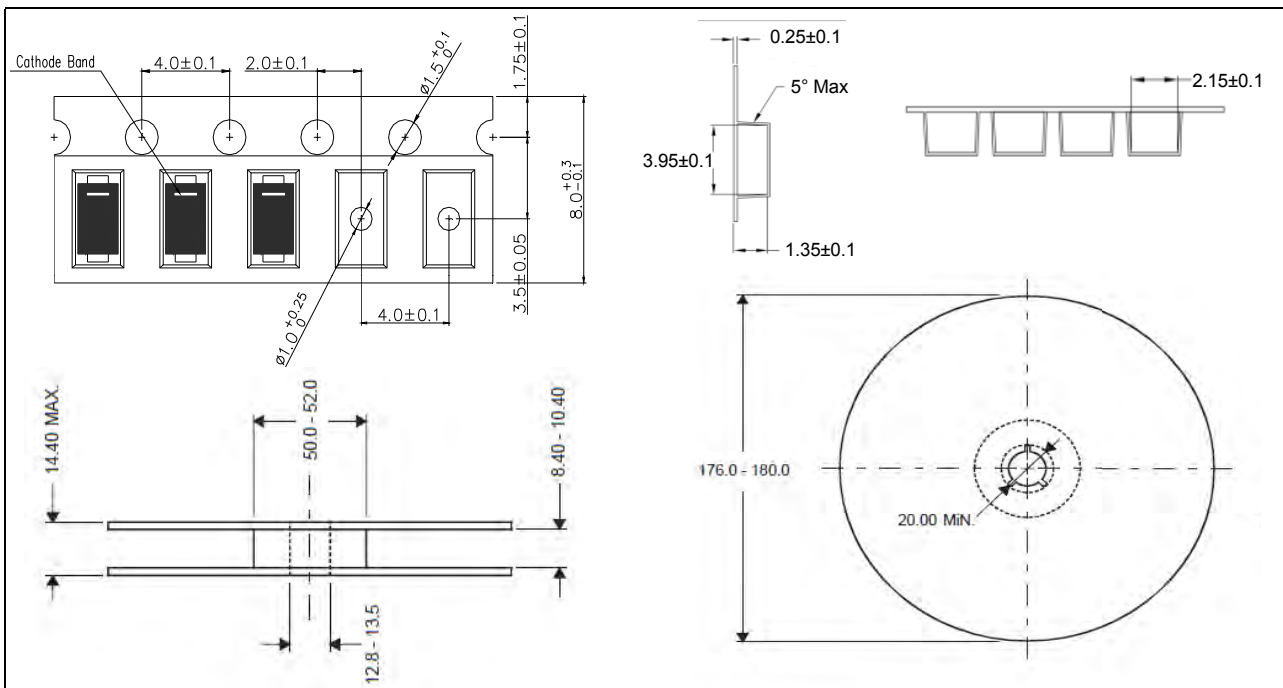
Package Dimensions



Pad Dimensions



Package Information



Ordering information

Order code	Package	Packaging option	Base quantity	Packaging specification
ES2AFL thru ES2MFL	SOD-123FL	Tape and reel	3000pcs / reel	EIA STD RS-481

Revision history

Date	Revision	Changes
23-May-2020	1.0	Initial release

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