

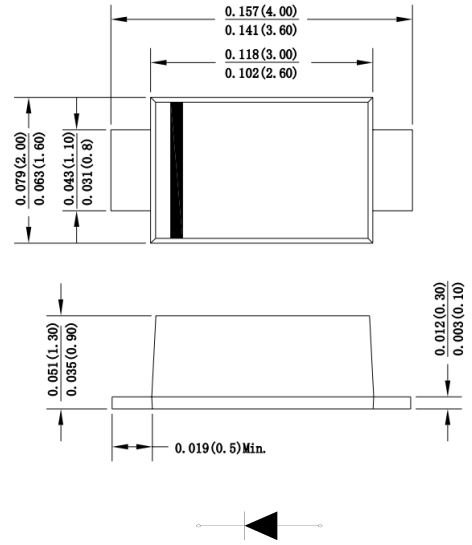


Features

- The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- Idea for printed circuit board
- Glass passivated Junction chip
- Low reverse leakage
- High forward surge current capability
- High temperature soldering guaranteed 250°C/10 seconds at terminals

Mechanical Data

Case : Molded plastic body
 Terminals : Solder plated, solderable per MIL-STD-750,Method 2026
 Polarity : Polarity symbol marking on body
 Mounting Position : Any
 Weight : 0.0007 ounce, 0.02 grams



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	E1A	E1B	E1C	E1D	E1F	E1G	E1J	UNITS	
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 rectified current at T _L =100°C	I _(AV)	1.0							A	
Peak forward surge current, 8.3ms single half sine-wave superimposed on rated load	I _{FSM}	35.0							A	
Maximum instantaneous forward voltage at 1.0A	V _F	0.95				1.25		1.7	V	
Maximum DC reverse current T _A =25°C at rated DC blocking voltage T _A =125°C	I _R	5.0				500				uA
Maximum reverse recovery time(Note 1)	T _{rr}	35				ns				
Typical junction capacitance (Note2)	C _J	7.0				pF				
Typical thermal resistance	R _{qJA}	85.0				°C/W				
Operating junction and storage temperature range	T _J ,T _{STG}	-55 to +150							°C	

Note: 1.Reverse recovery time test condition: I_F=0.5A I_R=1.0A I_{rr}=0.25A
 2.Measured at 1MHz and applied reverse voltage of 4.0V D.C.



Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

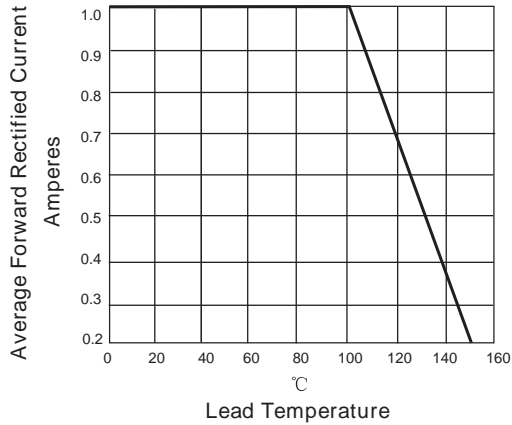


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

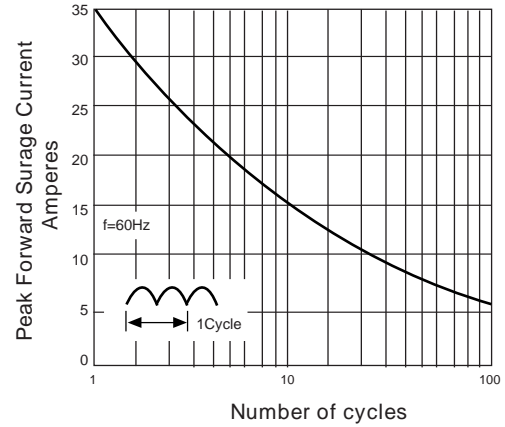


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

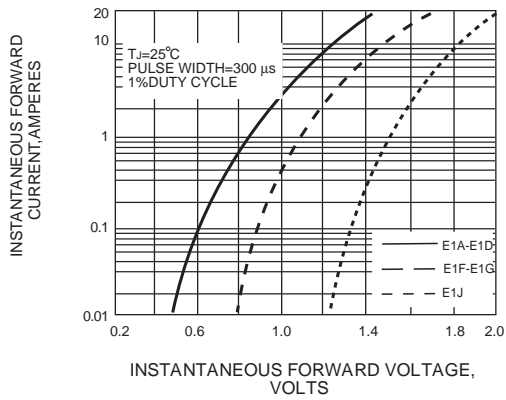
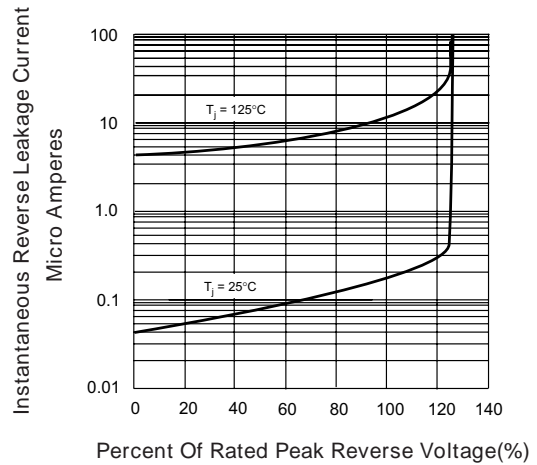
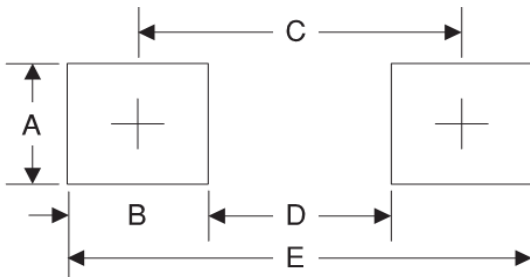


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



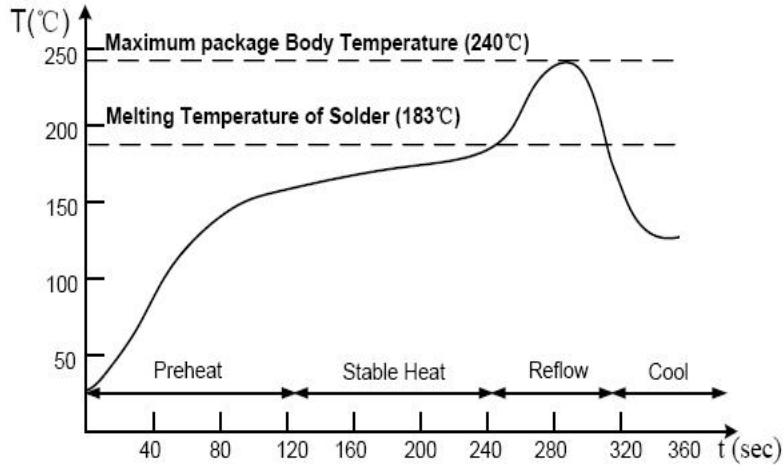
Suggested Pad Layout



Symbol	Unit (mm)	Unit (inch)
A	1.2	0.048
B	1.15	0.045
C	3.10	0.122
D	1.95	0.077
E	4.25	0.167



Suggested Soldering Temperature Profile

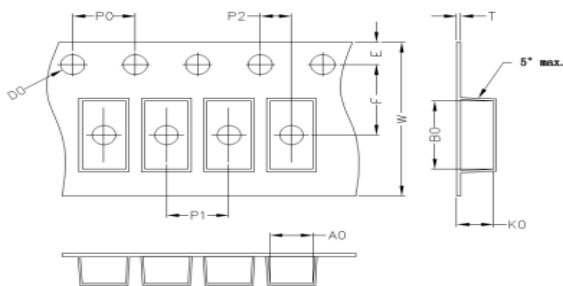


Note

- Recommended reflow methods: IR, vapor phase oven, hot air oven, wave solder.
- The device can be exposed to a maximum temperature of 265°C for 10 seconds.
- Devices can be cleaned using standard industry methods and solvents.
- If reflow temperatures exceed the recommended profile, devices may not meet the performance requirements.

Package Information

Carrier Dimension(mm)



A0	B0	K0	D0	E	F
2.15	3.95	1.35	1.55	1.75	3.50
P0	P1	P2	T	W	Tolerance
4.0	4.0	2.0	0.25	8	0.1

Package Specifications

Package	Reel Size	Reel DIA. (mm)	Q'TY/Reel (Kpcs)	Box Size (mm)	QTY/Box (Kpcs)	Carton Size (mm)	Q'TY/Carton (Kpcs)
SOD123FL	7'	178	3	180	15	380*200*200	150