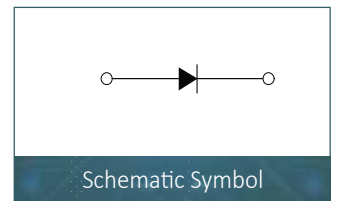


1. FEATURES

- For surface mounted applications in order to optimize board space
- Glass Passivated Chip Junction
- High temperature soldering : 260°C/ 10 seconds at terminals
- Ultra thin profile package for space constrained utilization
- Lead free in compliance with EU RoHS 2.0
- Green molding compound as per IEC 61249 standard



2. MECHANICAL DATA

- Case : JEDEC SOD-123FL, Molded plastic over passivated junction
- Terminals : Solderable per MIL-STD-750, Method 2026
- Standard Packaging : 8mm tape (EIA-481)
- Apporx. Weight : 0.0006 ounces, 0.0173 grams
- Polarity : Color band cathode

3. MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A =25°C)

PARAMETER	SYMBOL	ES1001FL	RS1002FL	RS1004FL	RS1006FL	UNIT
Device marking code		E1B	E1D	E1G	E1J	
Maximum repetitive peak reverse voltage	V _{RRM}	100	200	400	600	V
Maximum RMS voltage	V _{R(RMS)}	70	140	280	420	V
Maximum DC blocking voltage	V _{DC}	100	200	400	600	V
Maximum average forward rectified current	I _{F(AV)}	1				A
Surge peak forward current,8.3ms single half sine-wave superimposed on rated load per diode	I _{FSM}	30				A
Storage temperature	T _{STG}	-55~+150				°C
Junction temperature	T _J	-55~+150				°C
Typical Junction-to-lead thermal resistance per diode	R _{θJ-L}	35				°C/W
Typical Junction-to-ambient thermal resistance per diode	R _{θJ-A}	85				°C/W
Maximum forward voltage @I _F =1A,T _J =25°C(Note1)	V _F	1.3				V
Maximum reverse current @rated V _R per diode (Note2)	T _J =25°C	0.5				uA
	T _J =125°C	10				
Maximum reverse recovery time @I _F =0.5A,I _R =1.0A,I _{RR} =0.25A	t _{rr}	35				nS

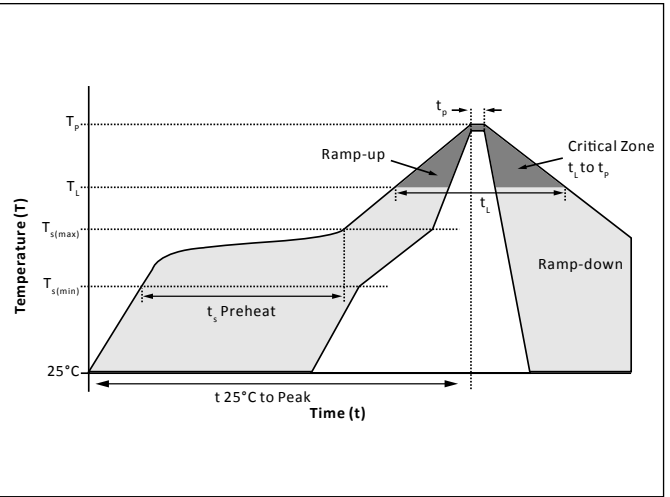
Note 1: Pulse test with PW=0.3mS

Note 2: Pulse test with PW=30mS



5. SOLDERING PARAMETERS

Reflow Condition		Lead-free assembly
Pre Heat	Temperature Max ($T_{s(min)}$)	150°C
	Temperature Max ($T_{s(max)}$)	200°C
	Time (min to max) (t_s)	60 – 180 secs
Average ramp up rate (Liquidus Temp (T_L) to peak)		3°C/second max
$T_{s(max)}$ to T_L - Ramp-up Rate		3°C/second max
Reflow	Temperature (T_L) (Liquidus)	217°C
	Time (min to max) (t_L)	60 – 150 seconds
Peak Temperature (T_p)		260°C
Time within 5°C of actual peak Temperature (t_p)		20 – 40 seconds
Ramp-down Rate		6°C/second max
Time 25°C to peak Temperature (T_p)		8 minutes max.
Do not exceed		280°C

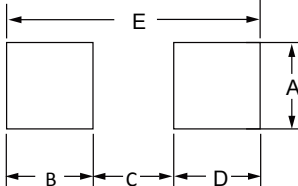


6. SOD-123FL PACKAGE DIMENSIONS

Item	Millimeters		Inches	
	Min.	Max.	Min.	Max.
A	0.95	1.30	0.031	0.057
A1	0.00	0.10	0.000	0.004
b	0.70	1.20	0.028	0.047
c	0.10	0.20	0.004	0.008
D	1.50	1.80	0.059	0.071
E	2.50	2.90	0.098	0.114
L	0.55	0.95	0.022	0.037
H	3.40	3.80	0.134	0.150



7. RECOMMENDED PAD LAYOUT DIMENSIONS

	Item	Millimeters	Inches
	A	1.22	0.048
	B	1.15	0.045
	C	1.95	0.077
	D	1.15	0.045
	E	4.25	0.167

8. ORDERING INFORMATION

Part Number	Component Package	QTY/Reel	Reel Size
ES1001FL-ES1006FL	SOD-123FL	3000PCS	7"
		10000PCS	13"



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