

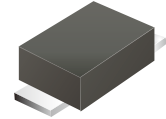
TV04WF150JB/360JB-HF

Working Voltage: 15 to 36 Volts

Peak Pulse Power: 400 Watts

RoHS Device

Halogen Free

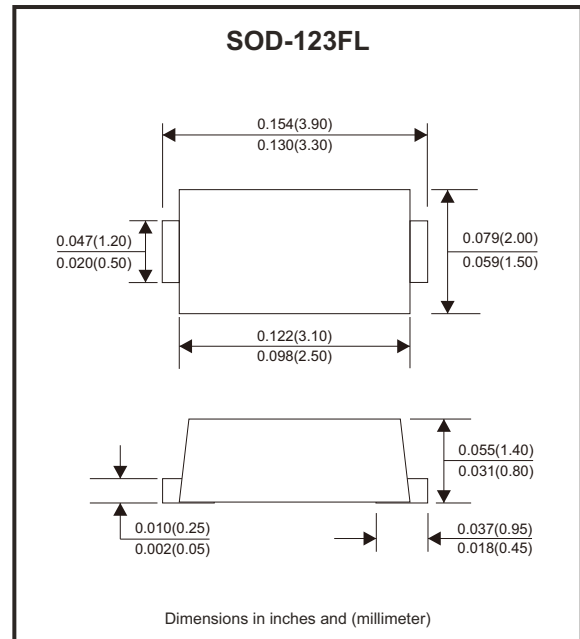


Features

- Glass passivated chip.
- 400W peak pulse power capability at 10/1000 μ s waveform, repetition rate (duty cycles): 0.01%.
- Low leakage.
- Excellent clamping capability.
- Very fast response time.

Mechanical data

- Case: SOD-123FL, molded plastic.
- Epoxy: UL 94V-0 rate flame retardant.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode end.
- Mounting position: Any.



Circuit Diagram



Maximum Ratings (TA=25°C unless otherwise noted)

Characteristics	Symbol	Value	Units
Peak power dissipation with a 10/1000 μ s waveform (Note 1)	P _{PPM}	400	W
Peak forward surge current, 8.3ms single half sine-wave (Note 2)	I _{FSM}	30	A
Power dissipation on infinite heatsink at T _L = 50°C	P _D	1.0	W
Maximum instantaneous forward voltage at 25A for unidirectional only	V _F	3.5	V
Typical thermal resistance junction to ambient	R _{θJA}	220	°C/W
Typical thermal resistance junction to lead	R _{θJL}	100	°C/W
Operating junction and storage temperature range	T _J , T _{STG}	-55 to +150	°C

Notes: 1. Non-repetitive current pulse, per Fig.3 and derated above Ta=25°C per Fig.2 .

2. Measured on 8.3ms single half sine-wave or equivalent square wave for unidirectional device only, duty cycle = 4 per minute maximum.

Company reserves the right to improve product design , functions and reliability without notice.

REV:A

Electrical Characteristics (TA=25°C unless otherwise noted)

Part No	Breakdown Voltage V _{BR} @ I _T			Max. Reverse Leakage I _R @ V _{RWM} (μA)	Working Peak Reverse Voltage V _{RWM} (A)	Max. Reverse Surge Current I _{PP} (A)	Max. Clamping Voltage V _C @ I _{PP} (V)	Marking Code
	Min. (V)	Max. (V)	I _T (mA)					Bi
TV04WF150JB-HF	16.7	18.5	1	1	15.0	16.4	24.4	XM
TV04WF360JB-HF	40.0	44.2	1	1	36.0	6.9	58.1	YP

Notes: For Bi-directional devices having V_R of 10V and less, the I_R limit is double.

Rating and Characteristic Curves (TV04WF150JB/360JB-HF)

Fig.1 - Peak Pulse Power Rating Curve

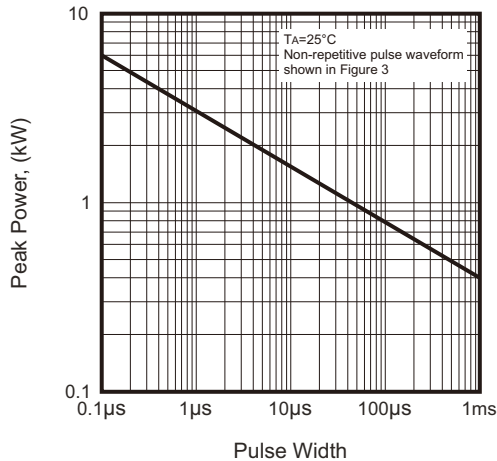


Fig.2 - Pulse Derating Curve

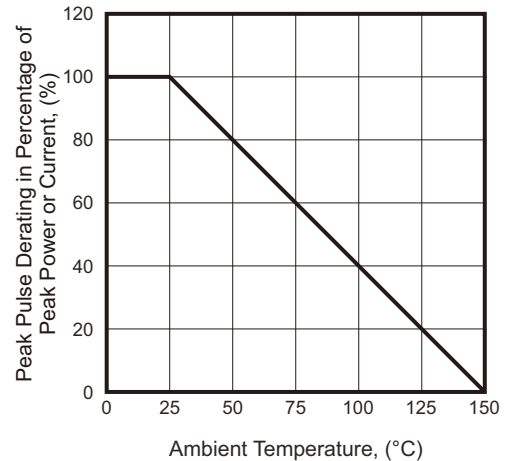


Fig.3 - Pulse Waveform

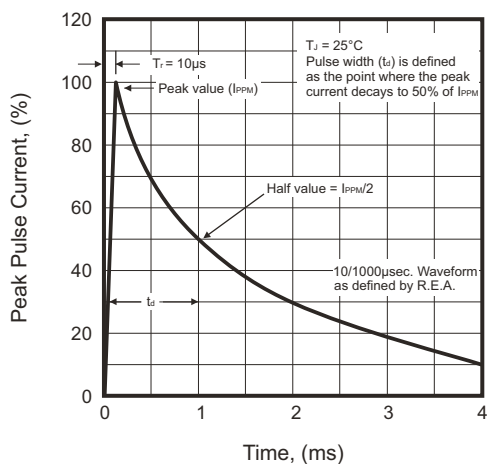


Fig.4 - Typical Junction Capacitance

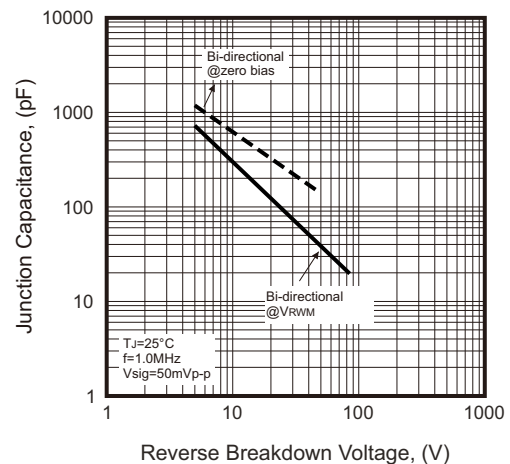


Fig.5 - Steady State Power Derating Curve

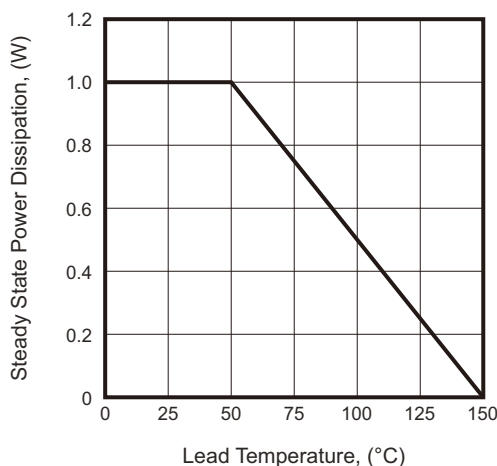
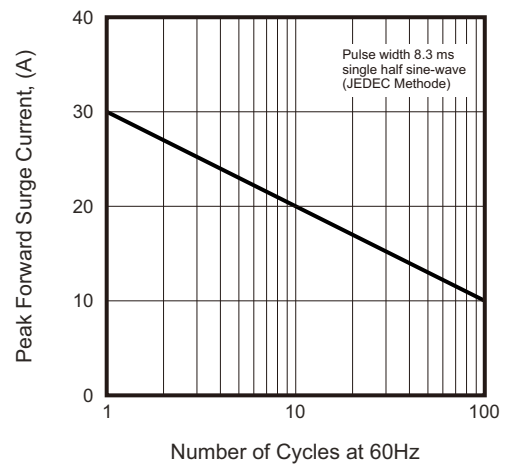
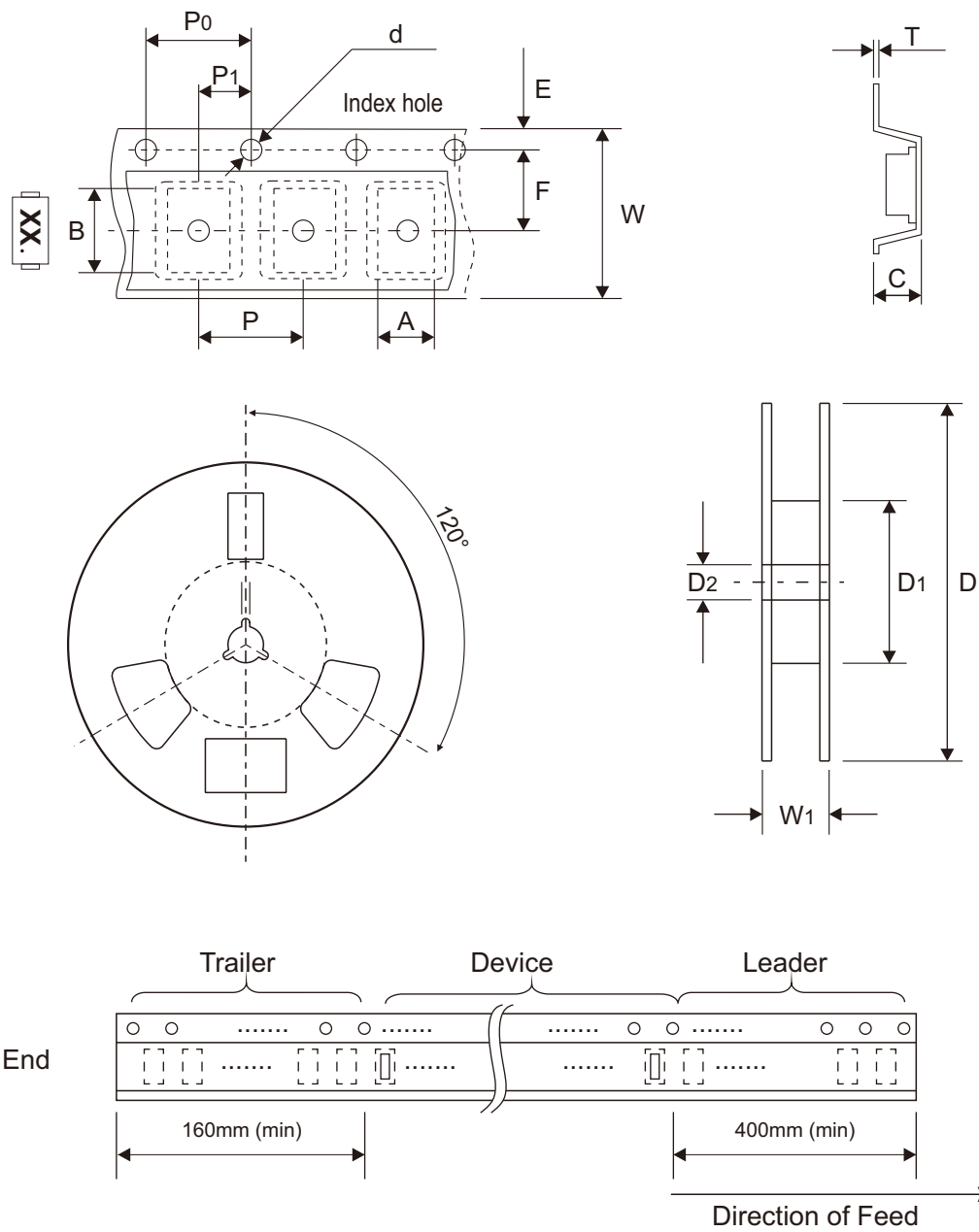


Fig.6 - Max. Non-repetitive Surge Current



Reel Taping Specification



SOD-123FL	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	2.05 ± 0.10	3.85 ± 0.10	1.45 ± 0.10	1.55 ± 0.10	177.80 ± 1.00	20.00 ± 1.00	13.00 ± 1.00
	(inch)	0.081 ± 0.004	0.152 ± 0.004	0.057 ± 0.004	0.061 ± 0.004	7.000 ± 0.039	0.787 ± 0.039	0.512 ± 0.039

SOD-123FL	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.20 ± 0.10	8.00 ± 0.15	16.20 ± 0.15
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.008 ± 0.004	0.315 ± 0.006	0.638 ± 0.006

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Marking Code

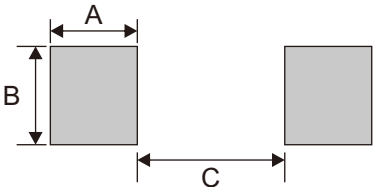
Part Number	Marking Code
TV04WF150JB/360JB-HF	See Page 2



xx = Product type marking code
Solid dot = Control code

Suggested P.C.B. PAD Layout

SIZE	SOD-123FL	
	(mm)	(inch)
A	1.15 Min	0.045 Min
B	1.30 Min	0.051 Min
C	1.95 Max	0.077 Max



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-123FL	3,000	7