

## CDSL4148-G/4448-G

**Reverse Voltage: 75 Volts**  
**Power Dissipation: 500 mW**  
**RoHS Device**

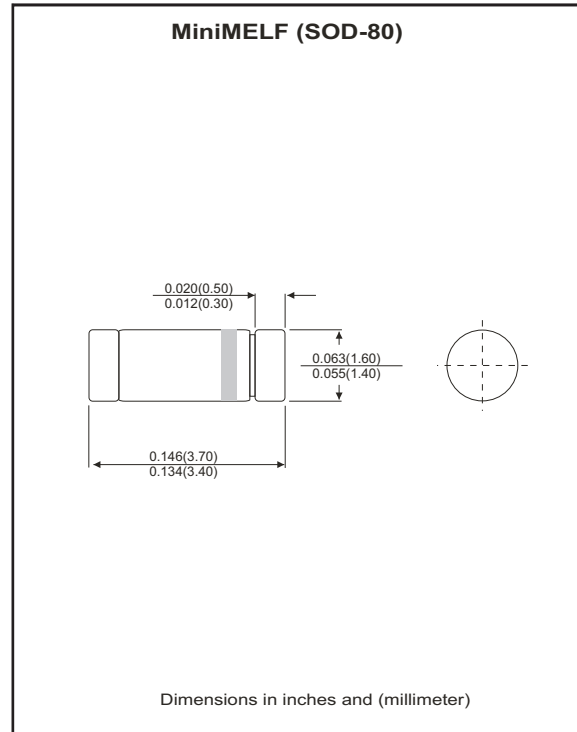


### Features

- Design for mounting on small surface.
- High speed switching.
- High mounting capability, strong surge withstand, high reliability.
- Also available in other standard case:  
 CDSF4148/4448 - SOD323F(1005) size  
 CDSU4148/4448 - SOD523F(0603) size

### Mechanical data

- Case: MiniMELF, glass case.
- Terminals: solderable per MIL-STD-750, method 2026.
- Polarity: indicated by cathode band.
- Approx. weight: 0.05 grams



### Maximum Ratings and Electrical Characteristics

(at Ta=25°C unless otherwise noted)

Parameter	Symbol	Conditions	CDSL4148-G	CDSL4448-G	Units
Repetitive peak reverse voltage	V <sub>RRM</sub>		75		V
Reverse voltage	V <sub>R</sub>		75		V
Forward current	I <sub>FM</sub>		300	500	mA
Averaged forward current	I <sub>o</sub>		150		mA
Peak surge forward current	I <sub>FSM</sub>	T=1.0 μS	2		A
Power dissipation	P <sub>D</sub>		500		mW
Maximum forward voltage	V <sub>F</sub>	@I <sub>F</sub> =5mA @I <sub>F</sub> =10mA @I <sub>F</sub> =100mA	- 1 -	0.72 - 1	V
Maximum reverse current	I <sub>R</sub>	@V <sub>R</sub> =75V @V <sub>R</sub> =25V	2.5 0.025		μA
Maximum reverse recovery time	T <sub>rr</sub>	I <sub>F</sub> =10mA, R <sub>L</sub> =50Ω, V <sub>R</sub> =6V	4		nS
Typical diode capacitance	C <sub>J</sub>	V <sub>R</sub> =0V, f=1.0MHz	4		pF
Maximum junction temperature	T <sub>J</sub>		175		°C
Storage temperature	T <sub>STG</sub>		-65 to +175		°C

## RATING AND CHARACTERISTIC CURVES (CDSL4148-G/4448-G)

Fig.1 - Forward Characteristics

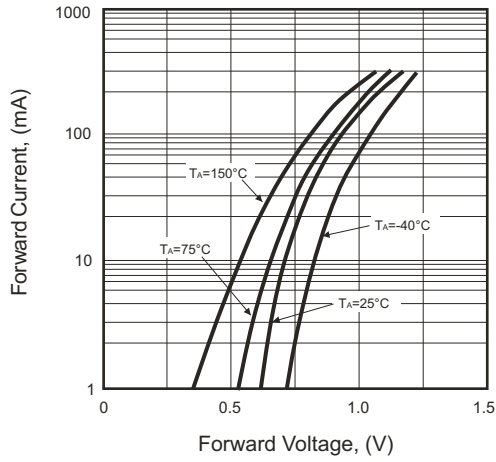


Fig.2 - Reverse Characteristics

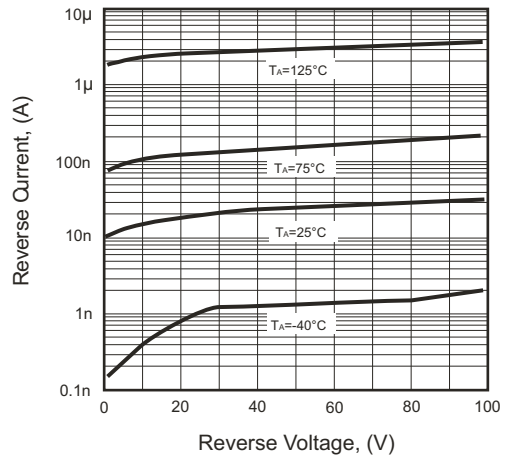


Fig.3 - Capacitance Between Terminals Characteristics

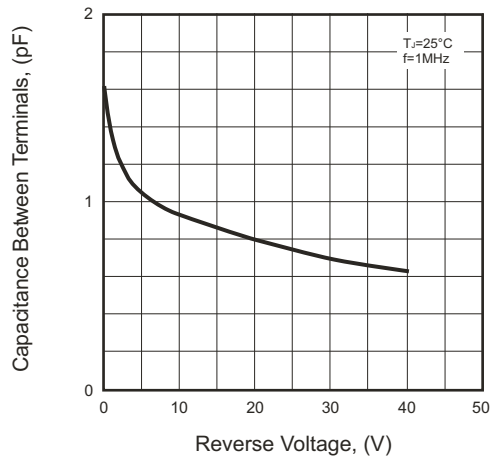
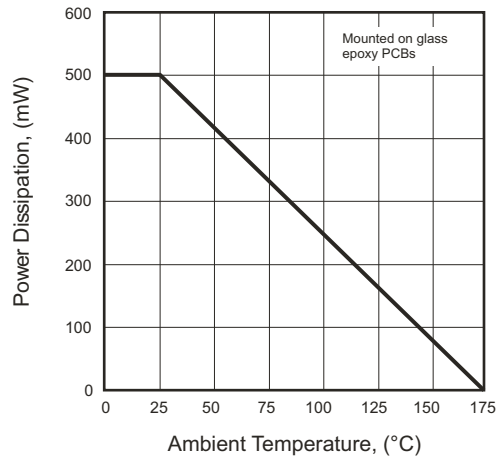
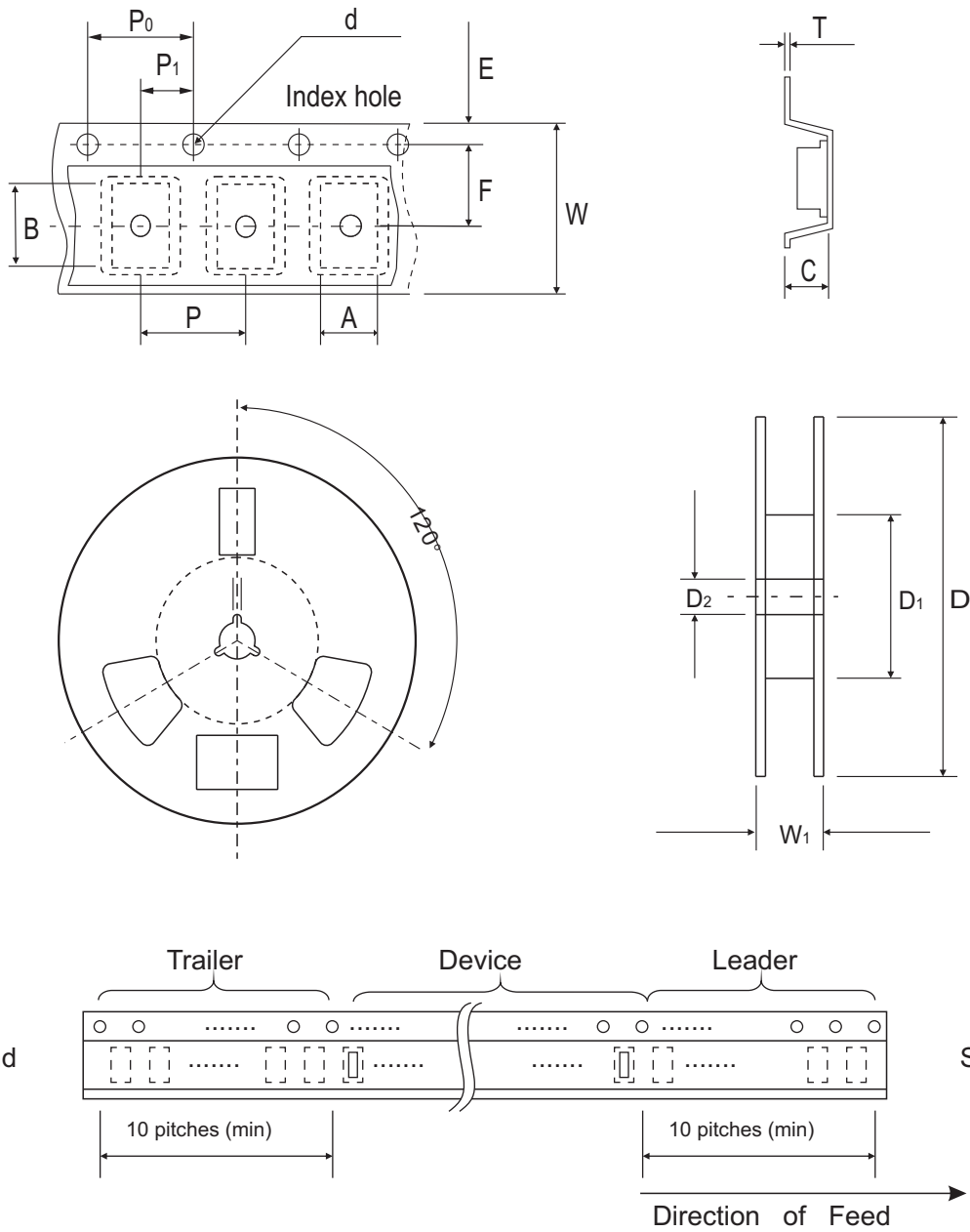


Fig.4 - Power Derating Curve



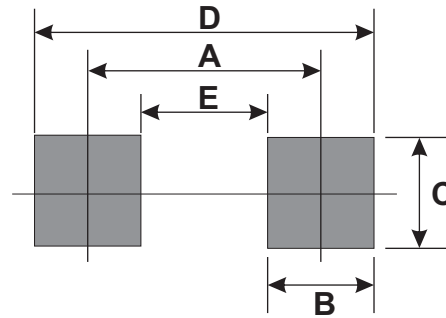
## Reel Taping Specification



Mini-MELF	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	2.00 Max.	3.90 Max.	2.00 Max.	1.55 ± 0.10	178 ± 1	50.0 Min.	13.0 ± 0.20
	(inch)	0.079 Max.	0.154 Max.	0.079 Max.	0.061 ± 0.004	7.008 ± 0.04	1.969 Min.	0.512 ± 0.008
Mini-MELF	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	W	W <sub>1</sub>
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	8.00 ± 0.30	14.4 Max.
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 ± 0.012	0.567 Max.

## Suggested PAD Layout

SIZE	Mini-MELF	
	(mm)	(inch)
A	3.40	0.134
B	1.30	0.051
C	1.70	0.067
D	4.70	0.185
E	2.10	0.083



## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
Mini-MELF	2,500	7