



### Switching Diode CD4448WQR



#### FEATURES

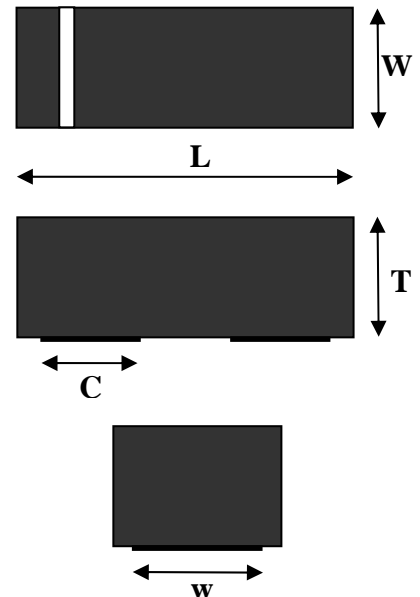
- Designed for mounting on small surface
- Extremely thin/leadless package
- Low leakage current
- High mounting capability, strong surge withstand, high reliability

#### MECHANICAL CHARACTERISTICS

- Case: 0402(DFN1006) standard package,molded plastic.
- Terminals: Sn plated type solderable per MIL-STD-750,method 2026.
- Marking Code: Cathode band
- Mounting position: Any
- Weight: 0.001 gram(approx.)

#### DIMENSIONS

Dimension/mm	0402
L	1.00±0.05
W	0.60±0.05
T	0.50±0.05
C	0.30±0.05
w	0.50±0.05



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**MAXIMUM RATING AND ELECTRICAL CHARACTERISTICS** (at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Repetitive peak reverse voltage		V <sub>RRM</sub>			90	V
Reverse voltage		V <sub>R</sub>			80	V
Average forward current		I <sub>O</sub>			100	mA
Forward current,surge peak	8.3 ms single half sine-wave superimposed on rate load ( JEDEC method)	I <sub>FSM</sub>		500		mA
Repetitive peak forward current		I <sub>FRM</sub>			225	mA
Power Dissipation		P <sub>D</sub>			125	mW
Storage temperature		T <sub>STG</sub>	-55		+125	°C
Junction temperature		T <sub>j</sub>			+125	°C
Forward voltage	I <sub>F</sub> = 100 mA	V <sub>F</sub>			1.0	V
Reverse current	V <sub>R</sub> = 80 V	I <sub>R</sub>			0.5	uA
Capacitance between terminals	f = 1 MHz,and 0.5VDC reverse voltage	C <sub>T</sub>			3	pF
Reverse recovery time	V <sub>R</sub> = 6V ,I <sub>F</sub> =10 mA, R <sub>L</sub> =50 ohms	T <sub>rr</sub>			4	nS

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RATING AND CHARACTERISTIC CURVES

Fig. 1 - Forward characteristics

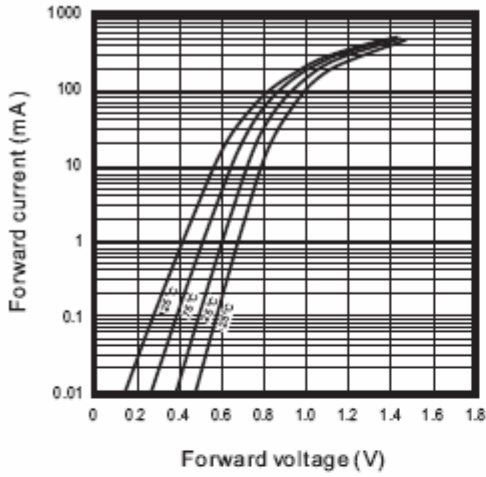


Fig. 2 - Reverse characteristics

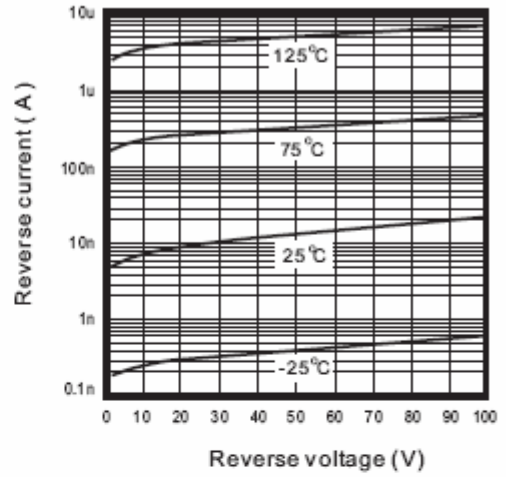


Fig. 3 - Capacitance between terminals characteristics

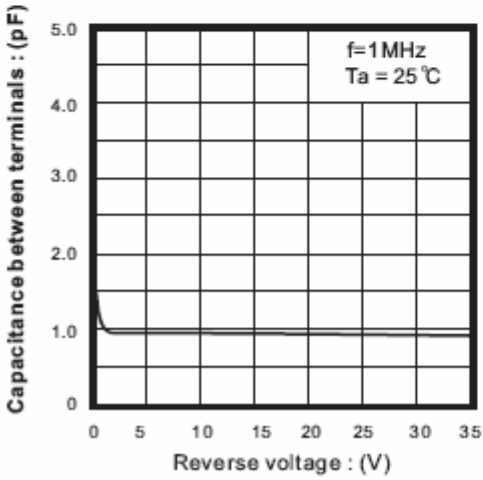
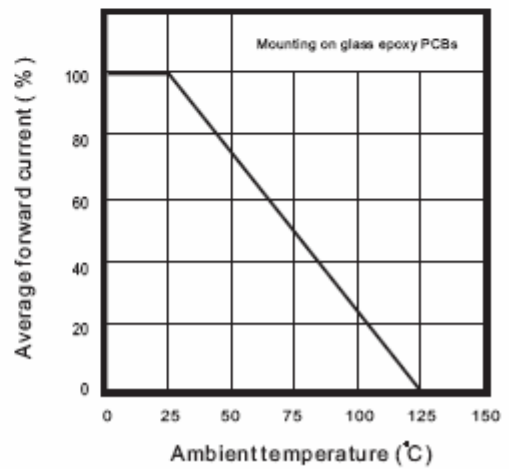


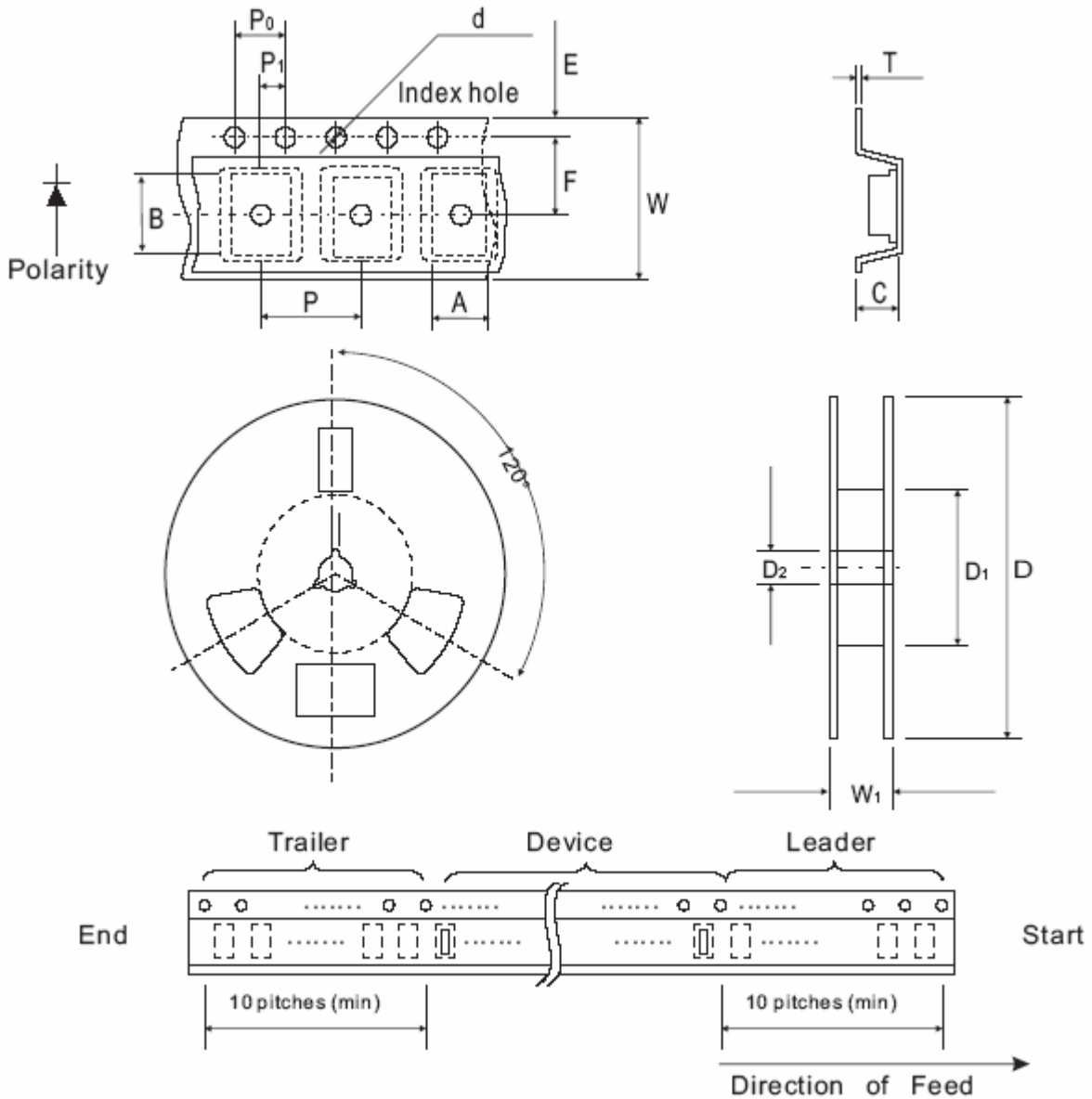
Fig. 4 - Current derating curve



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PACKING SPECIFICATION



Tape & Reel Dimensions

Package	Unit	A	B	C	d	D	D1	D2
0402QR	mm	0.72±0.10	1.14±0.10	0.55±0.10	1.50±0.10	178±0.10	60MIN	13.0±0.20
	inch	0.028±0.004	0.045±0.004	0.022±0.004	0.060±0.004	7.008±0.04	2.362MIN	0.512±0.008

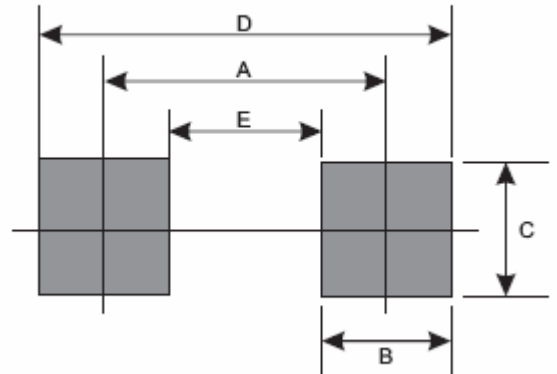
Package	Unit	E	F	p	P0	P1	T	W	W1
0402QR	mm	1.75±0.1	3.5±0.1	4.0±0.1	4.0±0.1	2.0±0.1	0.22±0.03	8.0±0.1	13.5MAX
	inch	0.069±0.004	0.138±0.002	0.157±0.004	0.157±0.004	0.079±0.004	0.009±0.002	0.315±0.008	0.531MAX

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Suggested PAD Layout

Size	Dimension/ mm				
	A	B	C	D	E
0402QR	0.6402	0.2492	0.4896	0.8912	0.3904
	0.0253"	0.0098"	0.0193"	0.0351"	0.0154"



Standard Package

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
0402QR	5000	7

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