CDBQC0240LR-HF

High-Reliability and High-Performance
Io = 200 mA
V_R = 40 Volts
RoHS Device
Halogen Free

Features

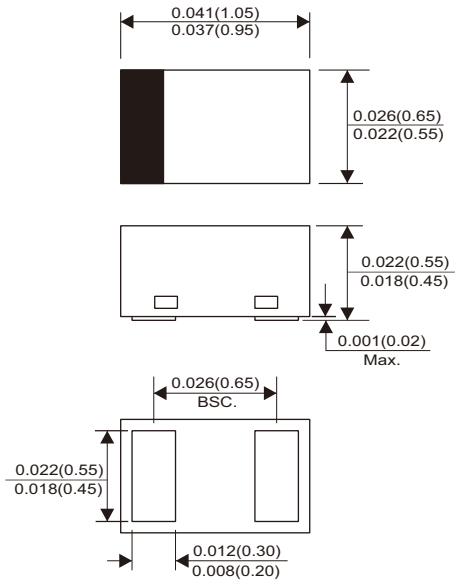
- Low reverse current, Low forward voltage.
- Designed for mounting on small surface.
- Extremely thin / leadless package.
- Majority carrier conduction.

Mechanical data

- Case: 0402C/SOD-923F standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Mounting position: Any.
- Weight: 0.001 grams (approx.).

Circuit Diagram

0402C/SOD-923F



Dimensions in inches and (millimeter)

Maximum Rating (at T_A=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Repetitive peak reverse voltage		V_{RRM}			40	V
Reverse voltage		V_R			40	V
Average forward rectified current		I_O			200	mA
Peak forward surge current	8.3 ms single half sine-wave superimposed on rate load (JEDEC method) * 1cycle	I_{FSM}			3	A
Thermal resistance junction to ambient		$R_{\theta JA}$			500	°C/W
Operating temperature range		T_J	-55		+150	°C
Storage temperature range		T_{STG}	-55		+150	°C

Electrical Characteristics (at T_A=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	I_F = 100mA	V_F			0.48	V
	I_F = 200mA	V_F			0.58	V
Reverse current	V_R = 40V	I_R			5	μA
Capacitance	f = 1MHz, and 1 VDC reverse voltage	C_T		25	35	pF

Rating and Characteristic Curves (CDBQC0240LR-HF)

Fig.1 - Forward Characteristics

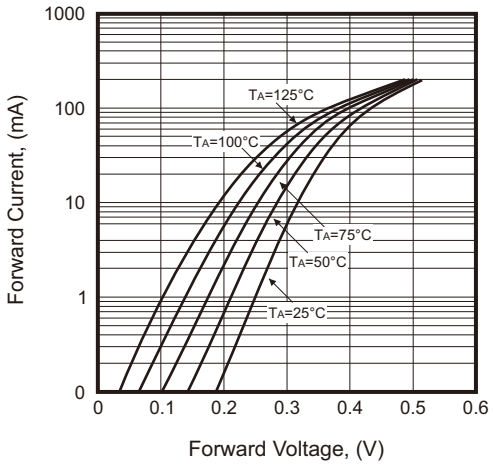


Fig.2 - Reverse Characteristics

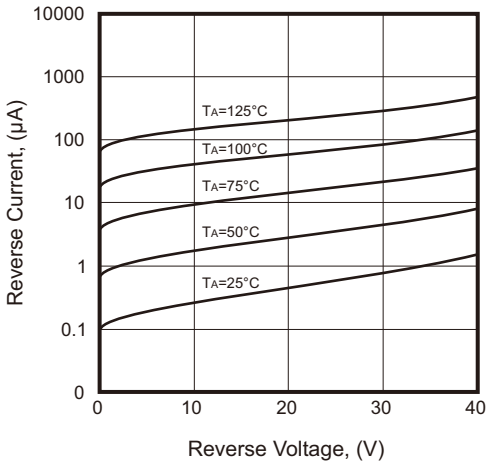


Fig.3 - Typical Capacitance Between Terminals Characteristics

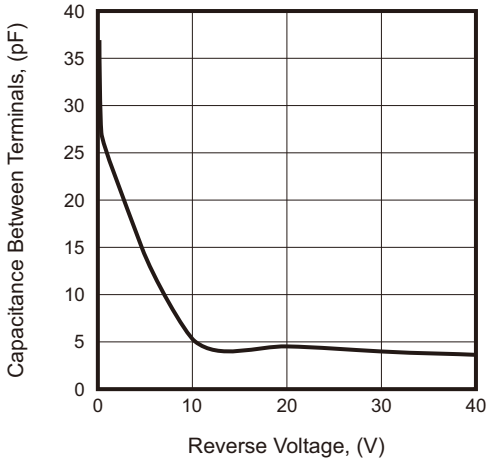
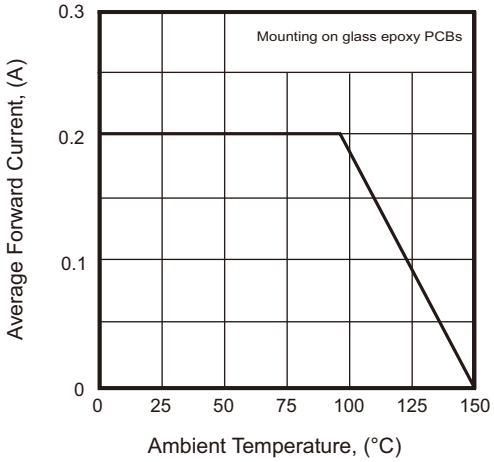
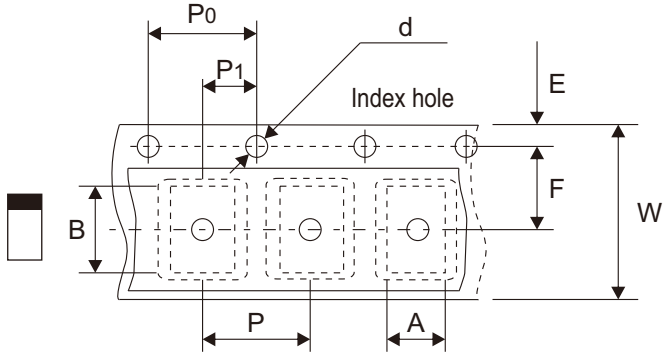
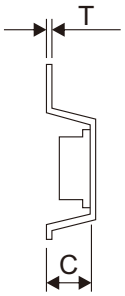


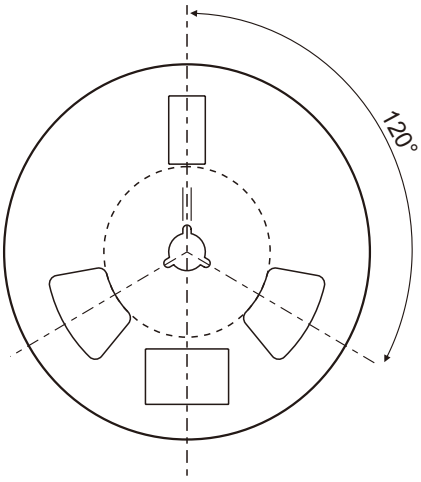
Fig.4 - Forward Current Derating Curve

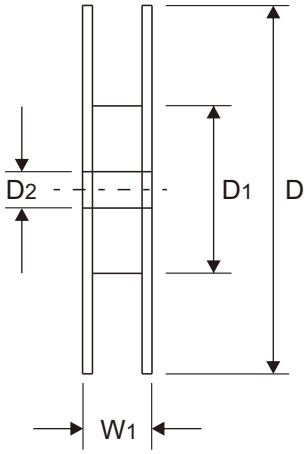


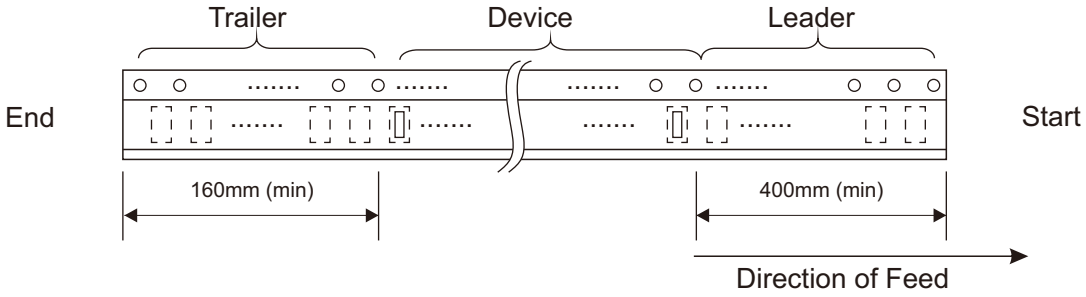
Reel Taping Specification











	SYMBOL	A	B	C	d	D	D1	D2
0402C (SOD-923F)	(mm)	0.75 ± 0.05	1.17 ± 0.05	0.65 ± 0.05	1.50 + 0.10 − 0.00	178.00 ± 1.00	60.00 ± 0.50	13.50 ± 0.20
	(inch)	0.030 ± 0.002	0.046 ± 0.002	0.026 ± 0.002	0.059 + 0.004 − 0.000	7.008 ± 0.039	2.362 ± 0.020	0.531 ± 0.008

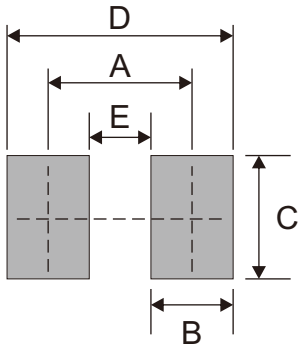
	SYMBOL	E	F	P	P0	P1	T	W	W1
0402C (SOD-923F)	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.20 + 0.02 − 0.05	8.00 ± 0.20	12.00 + 0.50 − 0.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.008 + 0.001 − 0.002	0.315 ± 0.008	0.472 + 0.020 − 0.000

Marking Code

Part Number	Marking Code
CDBQC0240LR-HF	BX

Suggested P.C.B. PAD Layout

SIZE	0402C/SOD-923F	
	(mm)	(inch)
A	0.70	0.028
B	0.40	0.016
C	0.60	0.024
D	1.10	0.043
E	0.30	0.012



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
0402C/SOD-923F	5,000	7