

## CDBQC0240L-HF

**$I_o = 200 \text{ mA}$**   
 **$V_R = 40 \text{ Volts}$**   
**RoHS Device**  
**Halogen Free**



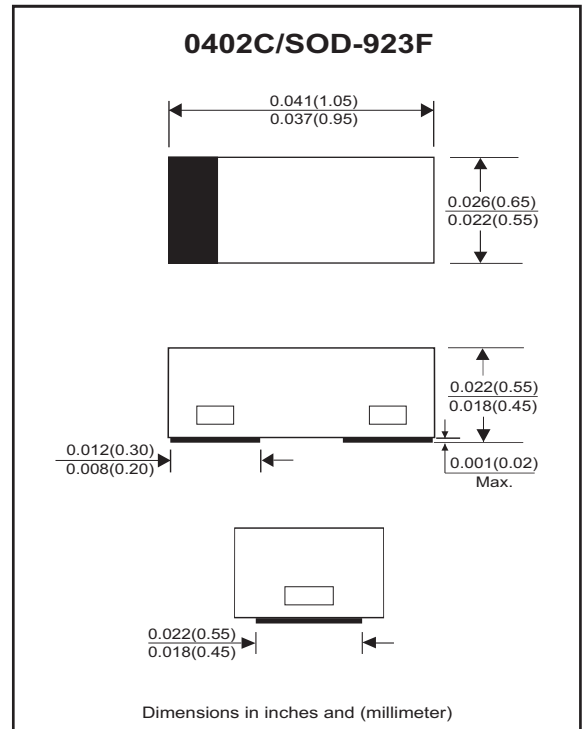
### Features

- Low forward voltage.
- Designed for mounting on small surface.
- Extremely thin package.
- Majority carrier conduction.

### Mechanical data

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

### Circuit Diagram



### Maximum Rating (at $T_A=25^\circ\text{C}$ 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
Forward current, surge peak	8.3 ms single half sine-wave (1 cyc)	$I_{FSM}$			3	A
Thermal resistance	Junction to ambient	$R_{\theta JA}$		200		$^\circ\text{C}/\text{W}$
Junction temperature		$T_j$			+125	$^\circ\text{C}$
Storage temperature		$T_{STG}$	-40		+125	$^\circ\text{C}$

### Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 10\text{mA}$ $I_F = 100\text{mA}$ $I_F = 200\text{mA}$	$V_F$		0.25	0.30 0.40 0.48	V
Reverse current	$V_R = 10\text{V}$ $V_R = 30\text{V}$	$I_R$			10 30	$\mu\text{A}$
Capacitance between terminals	$V_R = 1\text{V}$ , $f = 1 \text{ MHz}$	$C_T$		14	20	pF

## RATING AND CHARACTERISTIC CURVES (CDBQC0240L-HF)

Fig. 1 - Forward characteristics

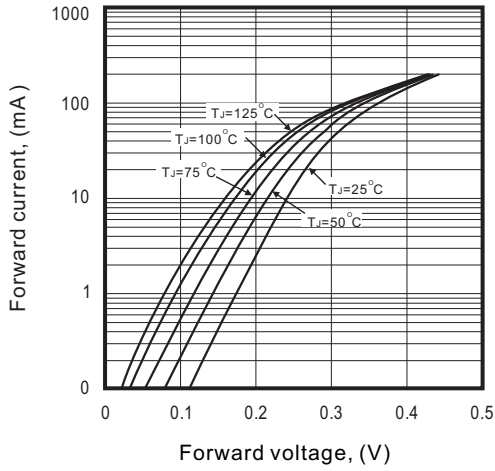


Fig.2 - Reverse characteristics

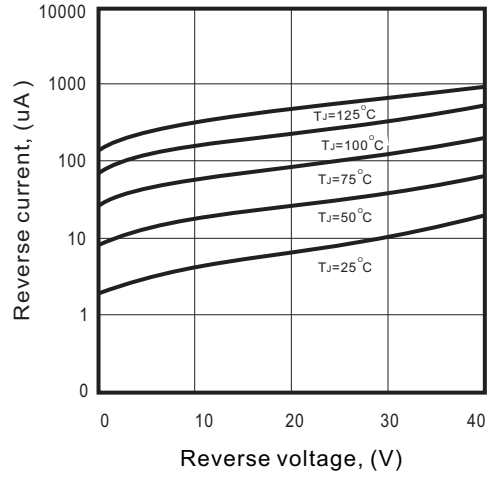


Fig.3 - Typical capacitance between terminals characteristics

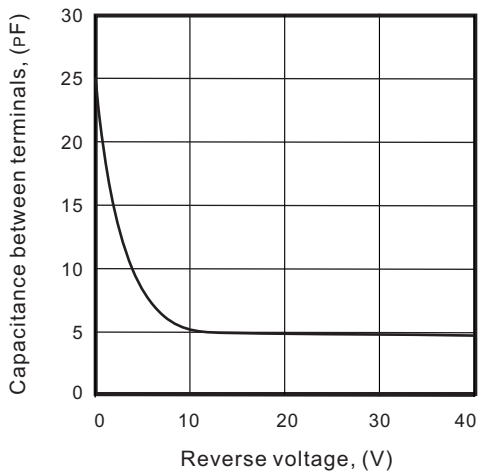
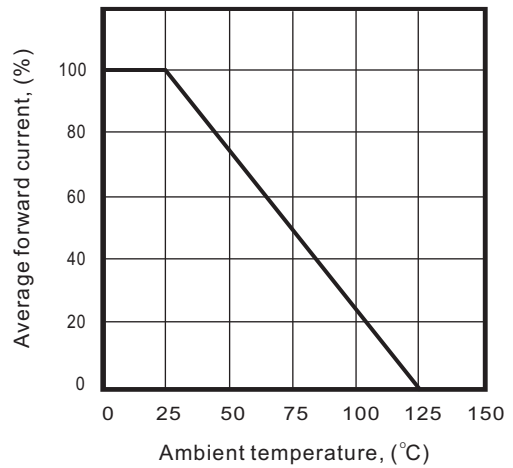
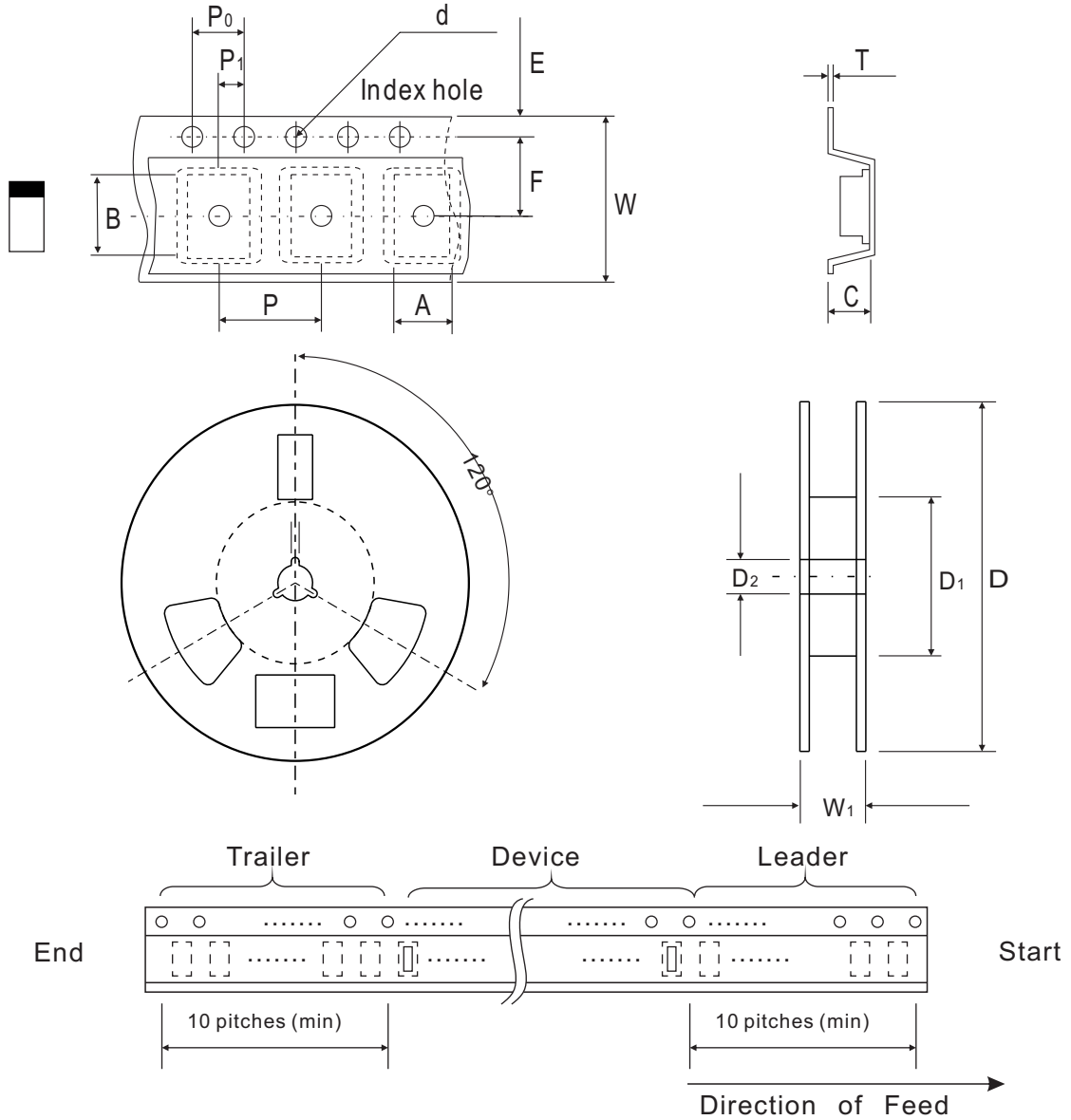


Fig.4 - Current derating curve



## Reel Taping Specification



0402C/ SOD-923F	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	0.75 ± 0.10	1.15 ± 0.10	0.60 ± 0.10	1.55 ± 0.10	178 ± 1.00	60.0 MIN.	13.0 ± 0.20
	(inch)	0.030 ± 0.004	0.045 ± 0.004	0.024 ± 0.004	0.061 ± 0.004	7.008 ± 0.04	2.362 MIN.	0.512 ± 0.008

0402C/ SOD-923F	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	T	W	W
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.22 ± 0.05	8.00 ± 0.20	13.50 MAX.
	(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	0.531 MAX.

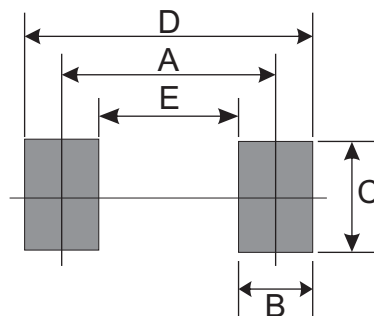
## Marking Code

Part Number	Marking Code
CDBQC0240L-HF	BV



## Suggested PAD Layout

SIZE	0402C/SOD-923F	
	(mm)	(inch)
A	0.70	0.028
B	0.40	0.016
C	0.70	0.028
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