

## CDBQC0240L-HF

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



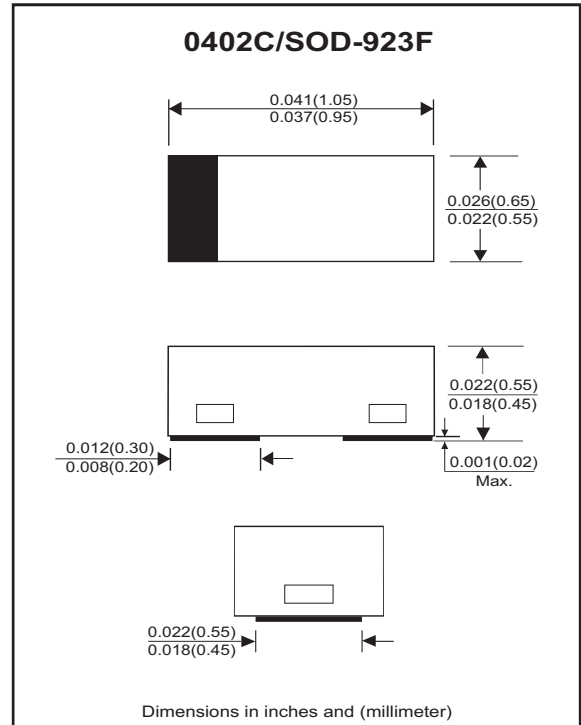
### Features

- 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: Matte tin 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
Peak forward surge current	8.3 ms single half sine-wave (1 cyc)	$I_{FSM}$			3	A
Thermal resistance	Junction to ambient	$R_{\theta JA}$		200		$^\circ\text{C/W}$
Junction temperature		$T_j$	-40		+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

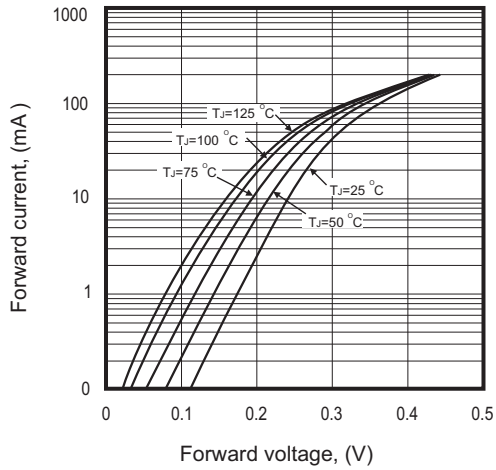


Fig.2 - Reverse characteristics

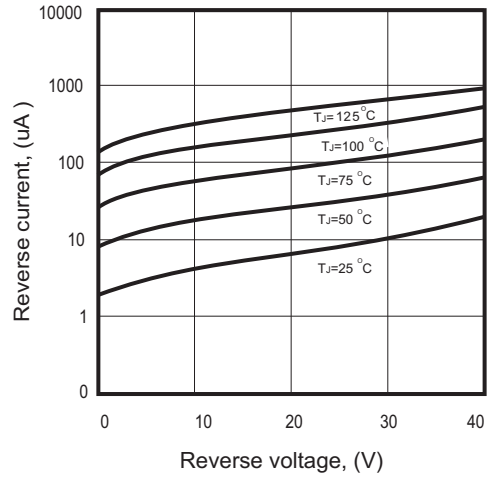


Fig.3 - Typical capacitance between terminals characteristics

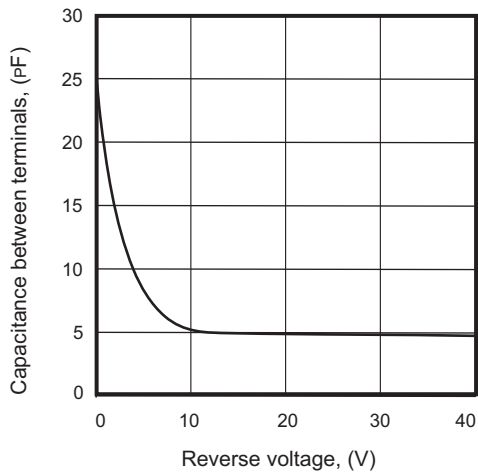
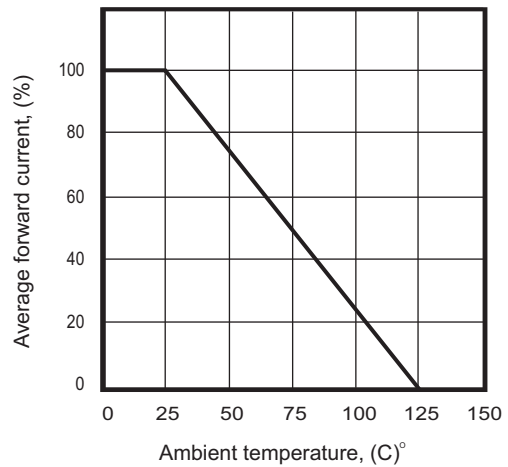
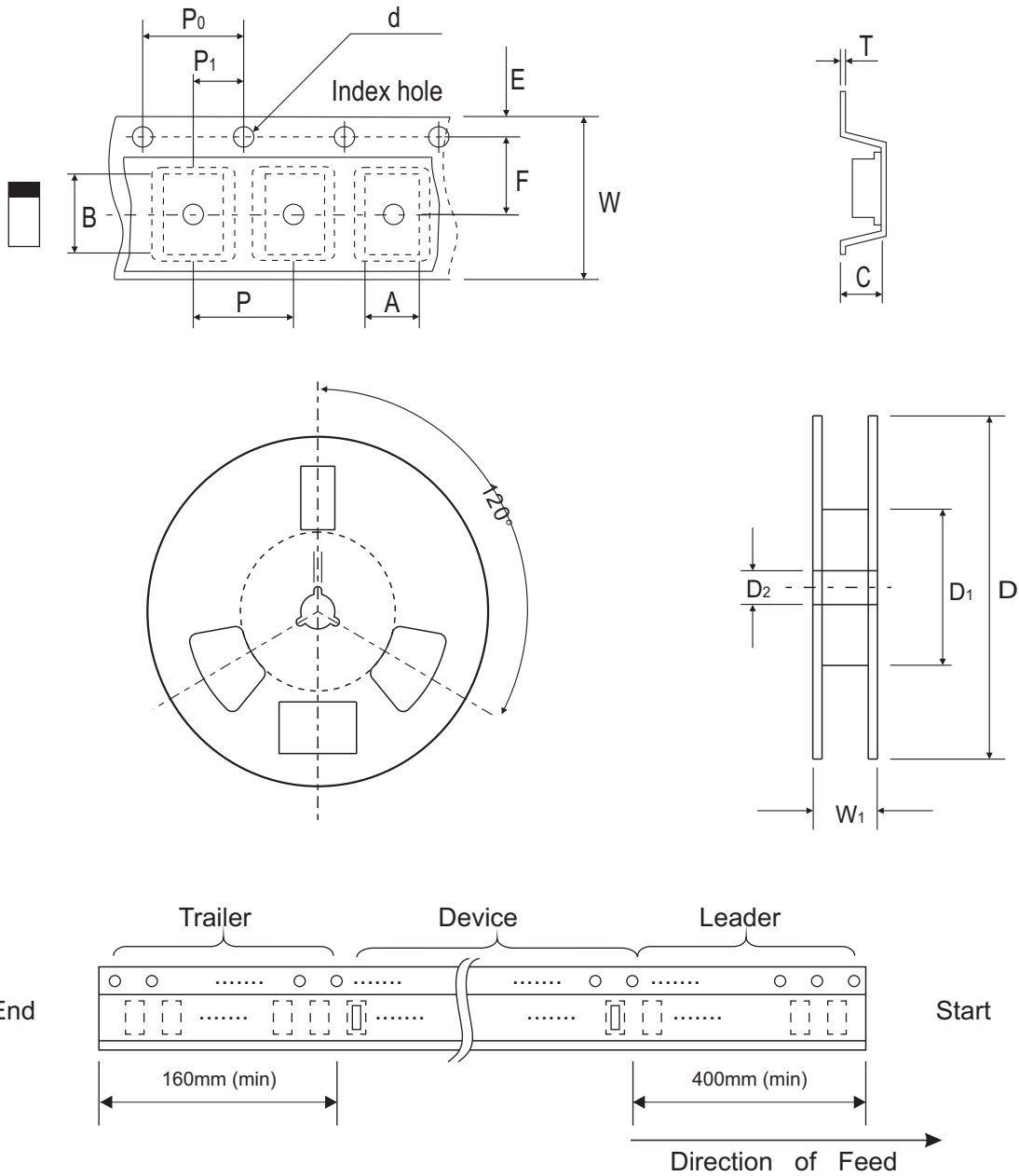


Fig.4 - Current derating curve



## Reel Taping Specification



0402C (SOD-923F)	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	0.75 ± 0.05	1.17 ± 0.05	0.65 ± 0.05	1.50 + 0.10 - 0	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	7.008 ± 0.039	2.362 ± 0.020	0.531 ± 0.008

0402C (SOD-923F)	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	T	W	W <sub>1</sub>
	(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
	(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

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

REV:A

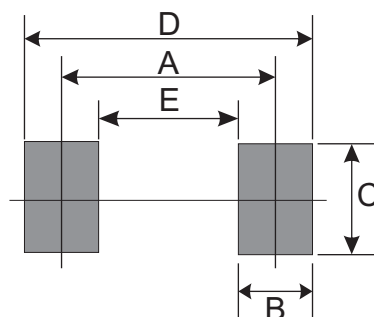
## Marking Code

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

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