

## CDBQC0530L-HF

$I_o = 500\text{mA}$

$V_R = 30\text{V}$

RoHS Device

Halogen Free

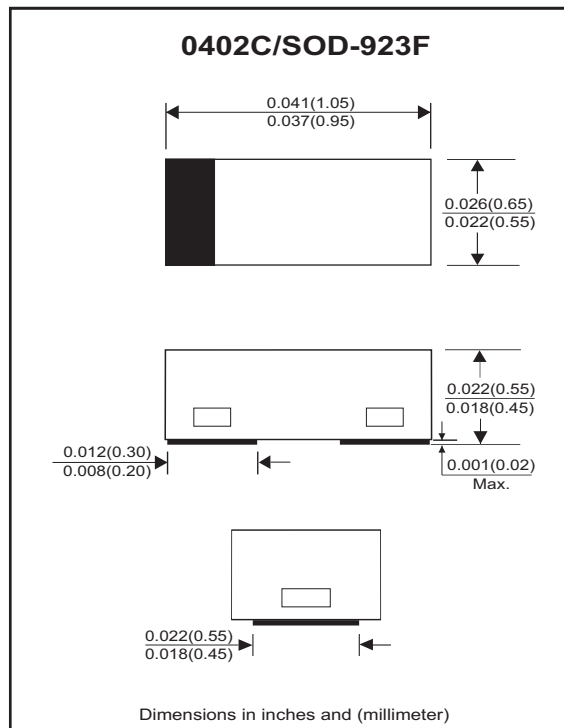


### Features

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

### Mechanical data

- Case: 0402C/SOD-923F standard package, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Polarity: Color band denotes cathode end.
- Mounting position: Any
- Weight: 0.001 grams(approx.).



### Circuit Diagram



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

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Reverse stand-off voltage		$V_{RRM}$	-	-	30	V
DC reverse voltage		$V_R$	-	-	30	V
Mean rectifying current		$I_o$	-	-	500	mA
Peak forward surge current	8.3ms single half sine-wave superimposed on rate load, 1cycle (JEDEC method)	$I_{FSM}$	-	-	3	A
Thermal resistance, Junction to ambient air		$R_{\theta JA}$			220	$^\circ\text{C}/\text{W}$
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	$I_F = 10\text{mA}$	$V_F$	-	-	0.25	V
	$I_F = 100\text{mA}$		-	-	0.34	
	$I_F = 500\text{mA}$		-	-	0.45	
Reverse current	$V_R = 30\text{V}, T_A=25^\circ\text{C}$	$I_R$	-	90	200	$\mu\text{A}$

## RATING AND CHARACTERISTIC CURVES (CDBQC0530L-HF)

Fig.1 - Forward Characteristics

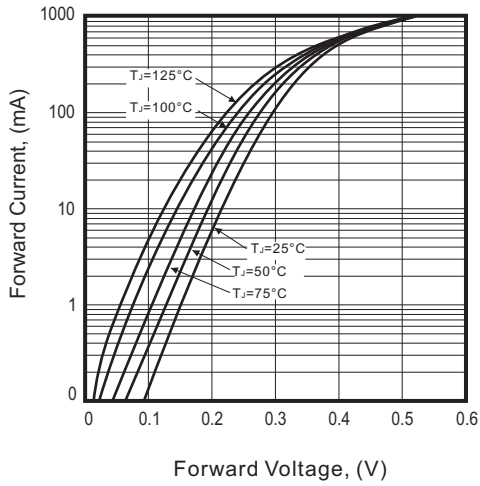


Fig.2 - Reverse Characteristics

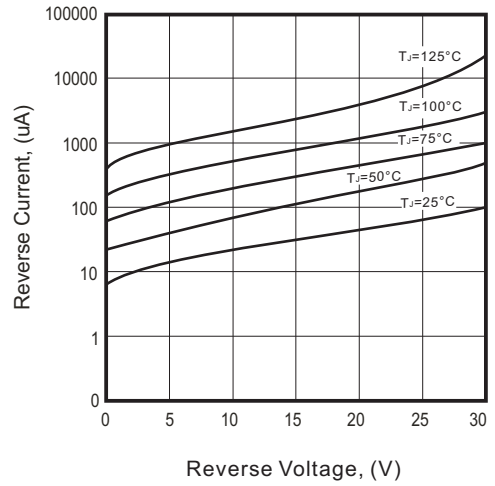


Fig.3 - Capacitance Characteristics

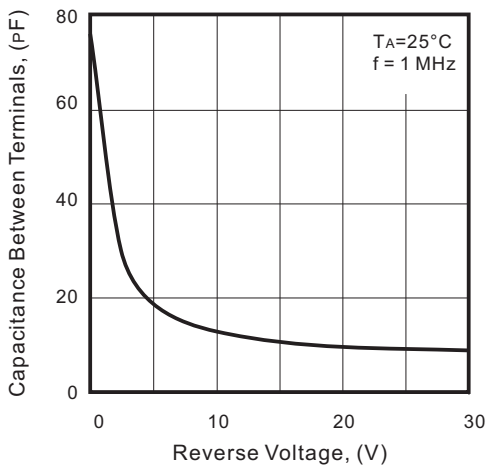
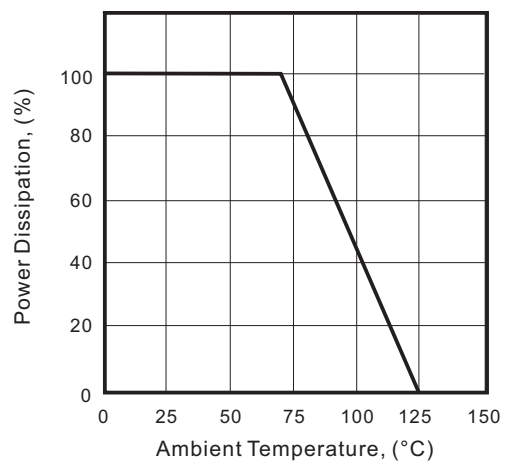
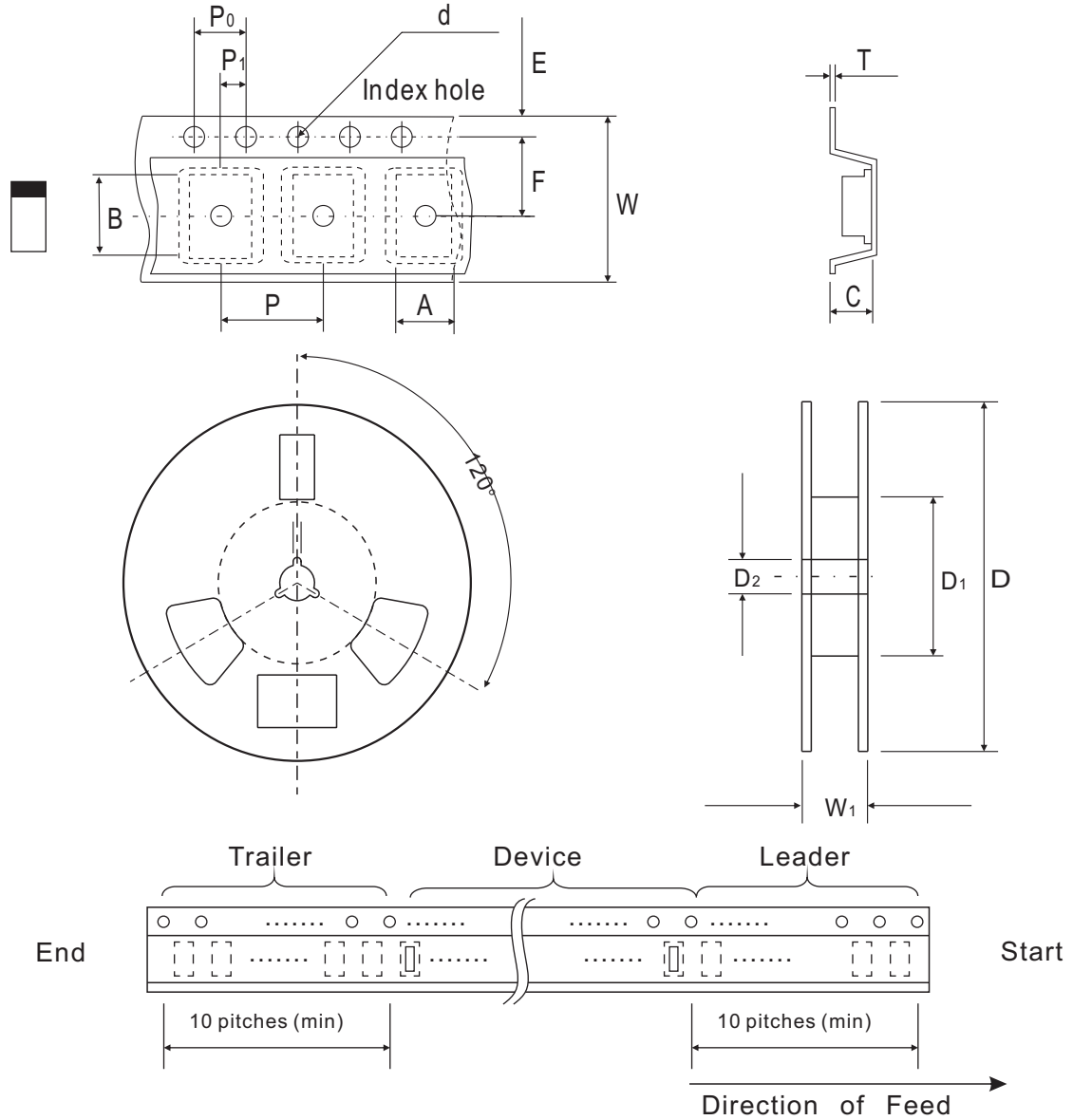


Fig.4 - Power Derating Curve



## 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

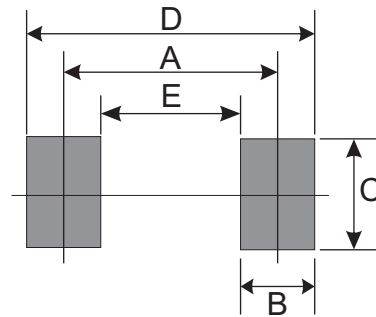
Part Number	Marking Code
CDBQC0530L-HF	BW



xx = Product type marking code

## 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