

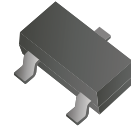
## CDBV3-706F-HF

$I_o = 30 \text{ mA}$

$V_R = 40 \text{ Volts}$

RoHS Device

Halogen Free



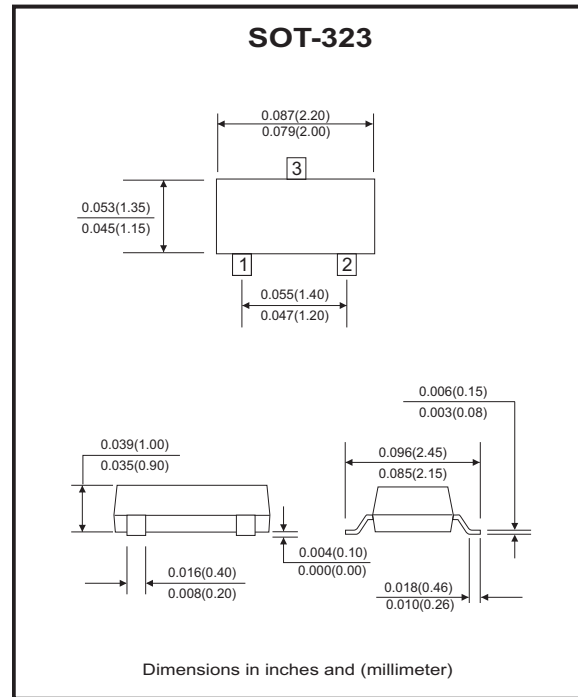
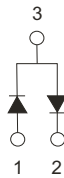
### Features

- Small package
- Low  $V_F$  and Low IR
- High reliability

### Mechanical data

- Case: SOT-323, molded plastic.
- Terminals: Soldeable per MIL-STD-750, method 2026.
- Mounting position: Any.
- Weight: 0.005 grams(approx.).

### Circuit Diagram



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

Parameter	Symbol	Value	Unit
Peak reverse voltage	$V_{RM}$	45	V
DC reverse voltage	$V_R$	40	V
Mean rectifying current	$I_o$	30	mA
Non-repetitive peak forward surge current @ $t=8.3\text{ms}$	$I_{FSM}$	200	mA
Power dissipation	$P_D$	200	mW
Thermal resistance from Junction to ambient	$R_{\theta JA}$	500	$^\circ\text{C/W}$
Junction temperature range	$T_j$	-40 to +125	$^\circ\text{C}$
Storage Temperature range	$T_{STG}$	-55 to +150	$^\circ\text{C}$

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

Parameter	Test Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 1\text{mA}$	$V_F$			0.37	V
Reverse current	$V_R = 10\text{V}$	$I_R$			1	$\mu\text{A}$
Capacitance between terminals	$V_R = 1\text{V}, f=1\text{MHz}$	$C_T$		2		pF

## RATING AND CHARACTERISTIC CURVES (CDBV3-706F-HF)

Fig.1 - Typical Forward Characteristics

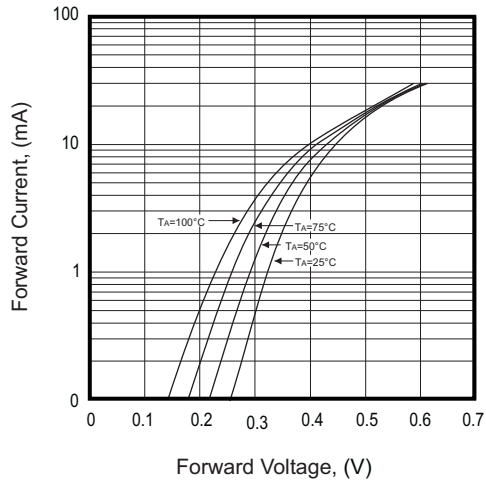


Fig.2 - Typical Reverse Characteristics

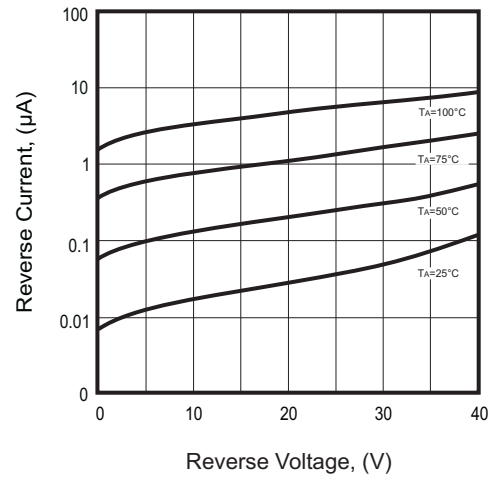


Fig.3 - Typical Capacitance Characteristics

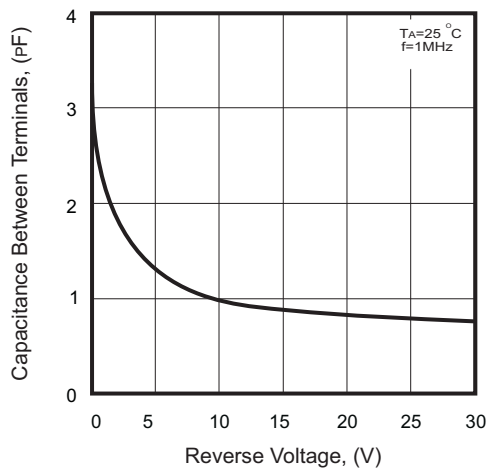
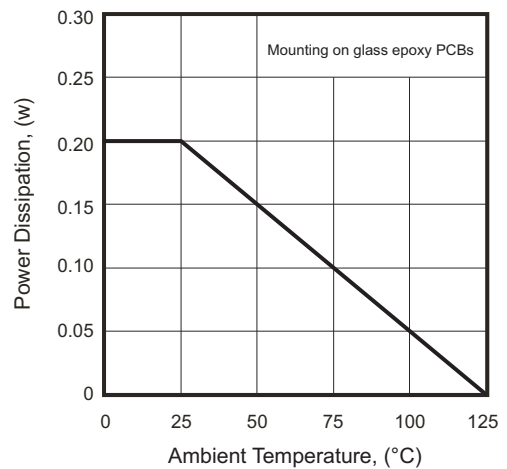
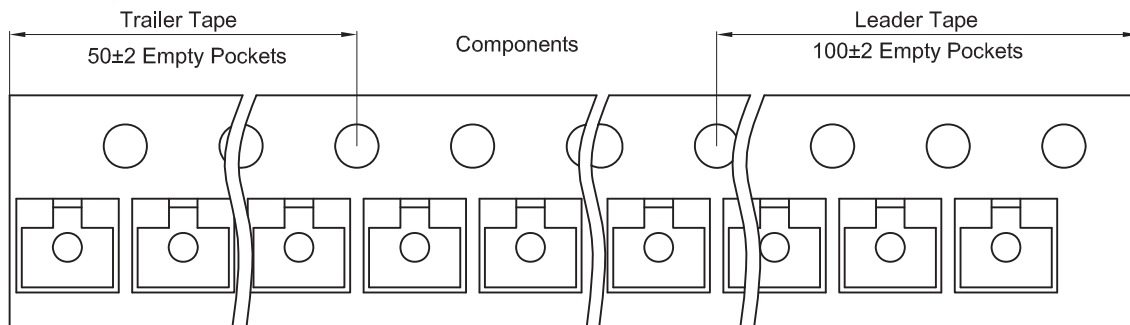
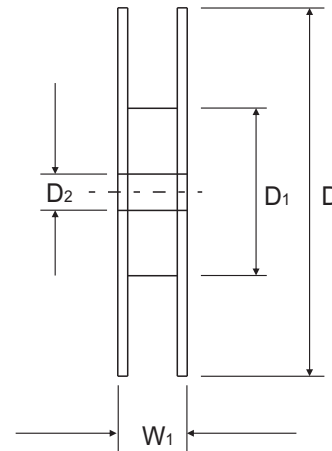
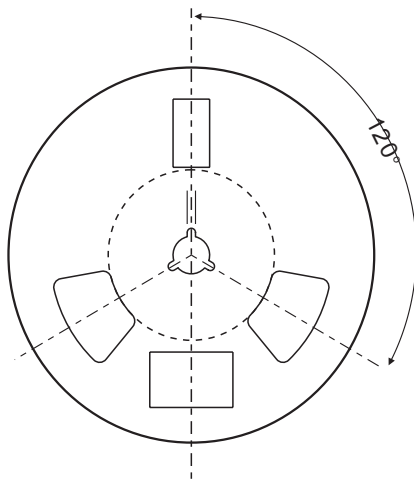
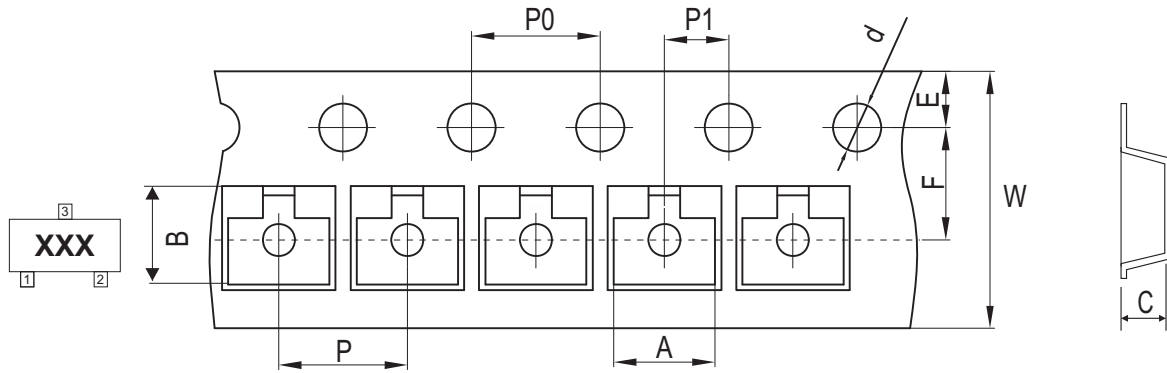


Fig.4 - Typical Power Derating Curve



## Reel Taping Specification

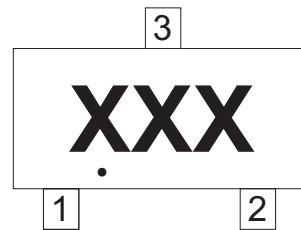


SOT-323	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.25 ± 0.05	2.55 ± 0.05	1.19 ± 0.05	1.55 ± 0.10	178 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.089 ± 0.002	0.100 ± 0.002	0.047 ± 0.002	0.061 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOT-323	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 + 0.30 / - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 / - 0.004	0.484 ± 0.039

## Marking Code

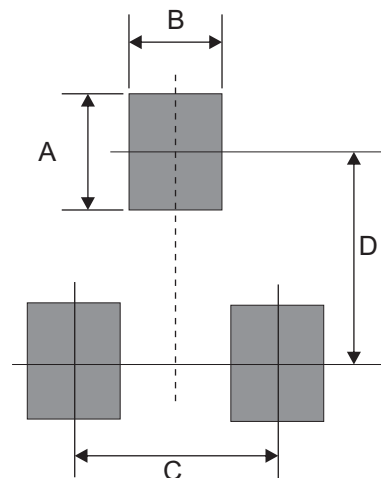
Part Number	Marking Code
CDBV3-706F-HF	3J•



xxx = Product type marking code  
 Solid dot = Halogen free parts

## Suggested PAD Layout

SIZE	SOT-323	
	(mm)	(inch)
A	0.80	0.031
B	0.50	0.020
C	1.30	0.051
D	2.20	0.087



## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
SOT-323	3,000	7