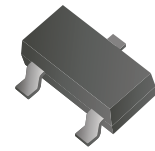


## CDBV3-40/S/C/A-G

**Reverse Voltage: 40 Volts**  
**Forward Current: 200 mA**  
**RoHS Device**



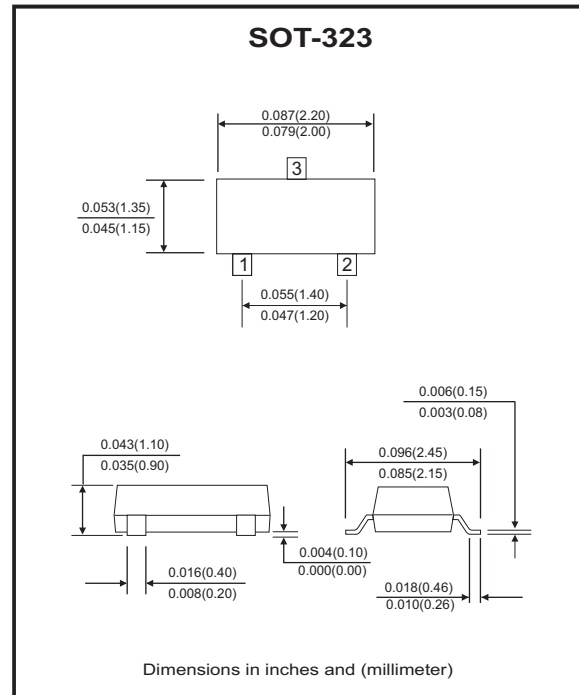
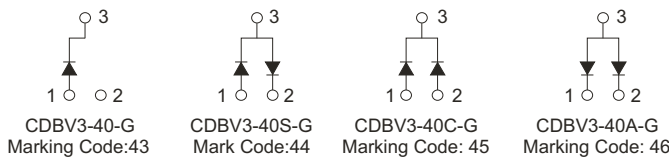
### Features

- Design for mounting on small surface.
- High speed switching application, circuit protection.
- Low turn-on voltage.

### Mechanical data

- Case: SOT-323, molded plastic.
- Terminals: solderable per MIL-STD-750, method 2026.
- Approx. weight: 0.006 grams

### Circuit diagram



### Maximum Ratings (at Ta=25°C unless otherwise noted)

Parameter	Symbol	Value	Units
Peak repetitive peak reverse voltage	$V_{RRM}$	40	V
Working peak reverse voltage	$V_{RWM}$		
DC blocking voltage	$V_R$		
Forward continuous current	$I_{FM}$	200	mA
Peak surge forward current (T=1.0sec)	$I_{FSM}$	0.6	A
Power dissipation	$P_D$	150	mW
Thermal resistance, junction to ambient	$R_{\theta JA}$	833	°C/W
Junction temperature	$T_J$	125	°C
Storage temperature	$T_{STG}$	-65 to +125	°C

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

Parameter	Symbol	Conditions	Min.	Max.	Units
Reverse breakdown voltage	$V_{BR}$	$I_R=10\mu A$	40		V
Reverse voltage leakage current	$I_R$	$V_R=30V$		200	nA
Forward voltage	$V_F$	$I_F=1mA$ $I_F=40mA$		380 1000	mV
Diode capacitance	$C_D$	$V_R=0V, f=1.0MHz$		5	pF
Reverse recovery time	$T_{rr}$	$I_{rr}=1mA, I_F=I_R=10mA,$ $R_L=100\Omega$		5	nS

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

REV:B

## RATING AND CHARACTERISTIC CURVES (CDBV3-40/S/C/A-G)

Fig.1 Forward Characteristics

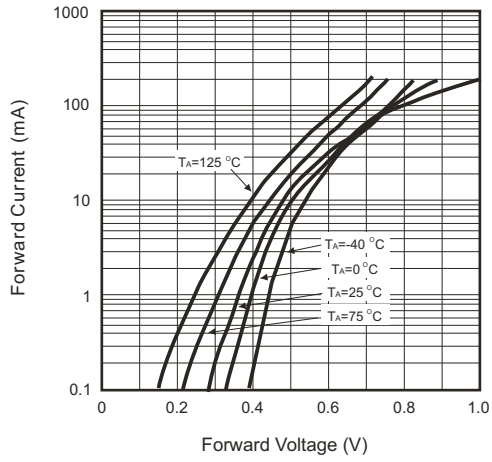


Fig.2 Reverse Characteristics

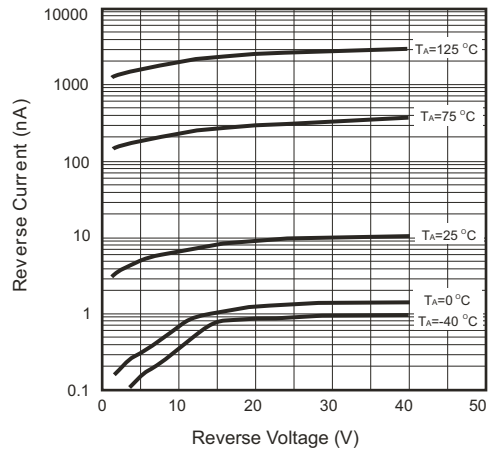


Fig.3 Capacitance Between Terminals Characteristics

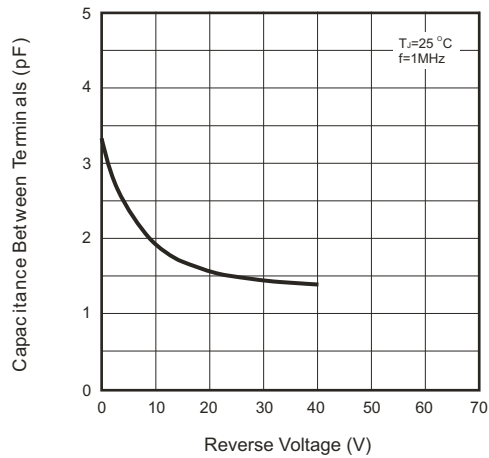
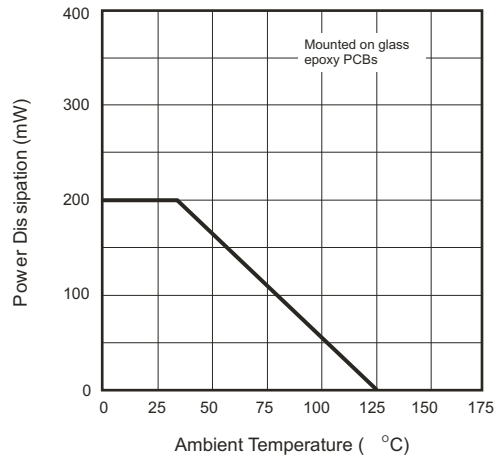
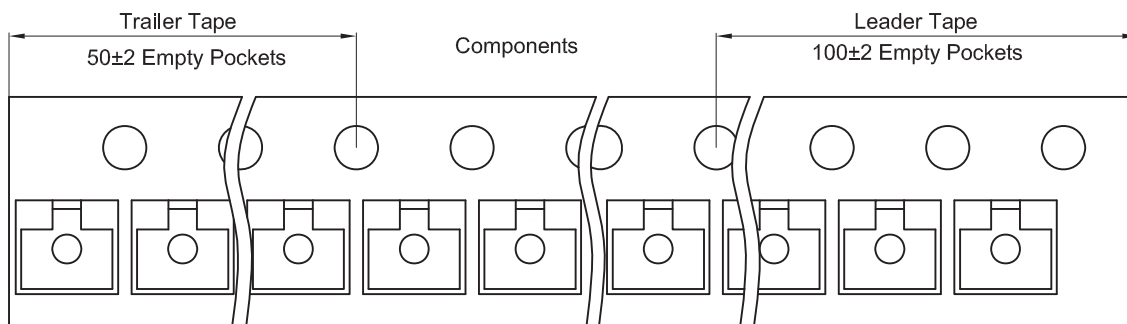
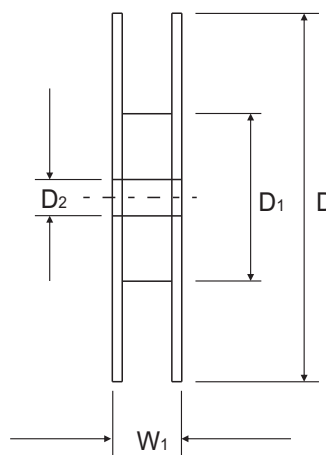
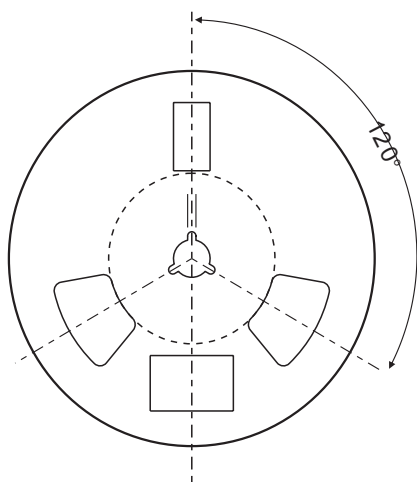
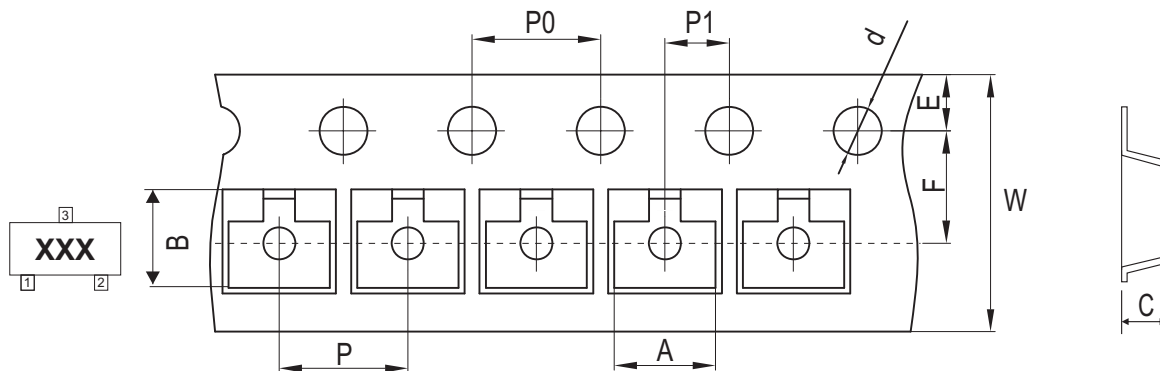


Fig.4 Power Derating Curve



## Reel Taping Specification

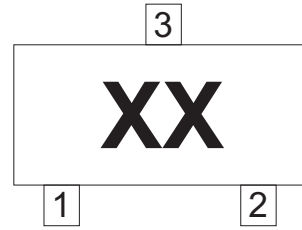


SOT-323	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.25 ± 0.05	2.55 ± 0.05	1.19 ± 0.05	1.55 ± 0.10	178 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.089 ± 0.002	0.100 ± 0.002	0.047 ± 0.002	0.061 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

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

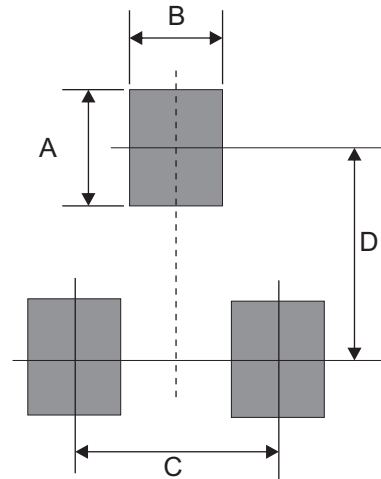
Part Number	Marking Code
CDBV3-40-G	43
CDBV3-40S-G	44
CDBV3-40C-G	45
CDBV3-40A-G	46



xx/xxx = Product type marking code

## 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