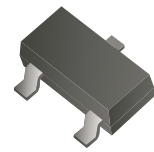


CDBV3-40/S/C/A-G

Reverse Voltage: 40 Volts

Forward Current: 200 mA

RoHS Device



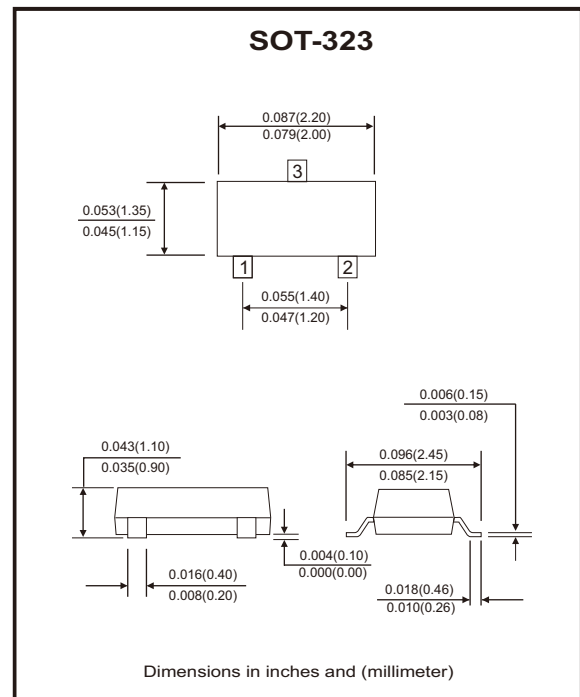
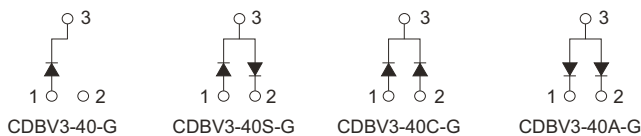
Features

- 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.
- Weight: 0.006 grams (approx.).

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

Rating and Characteristic Curves (CDBV3-40/S/C/A-G)

Fig.1 - Forward Characteristics

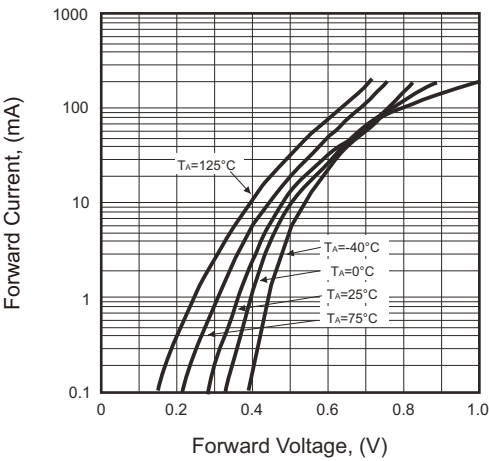


Fig.2 - Reverse Characteristics

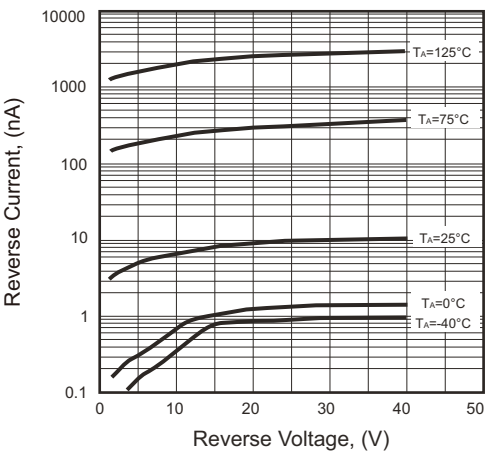


Fig.3 - Capacitance Between Terminals Characteristics

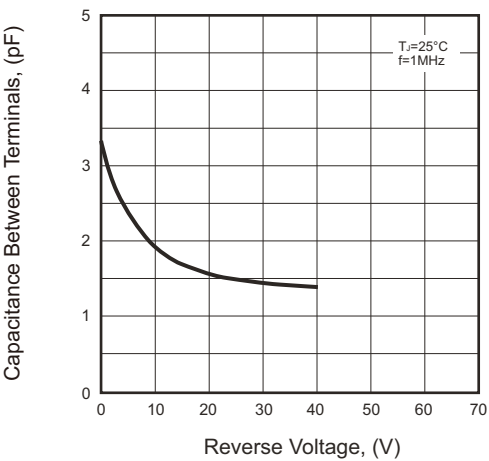
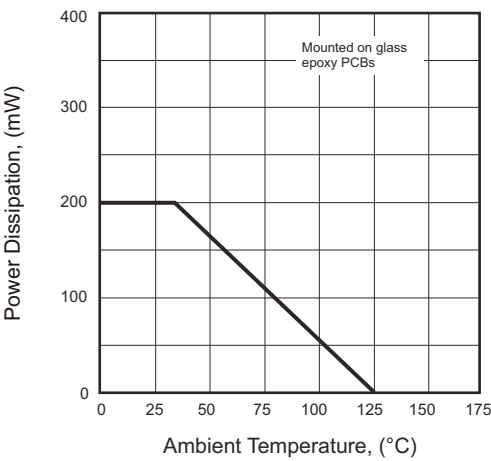
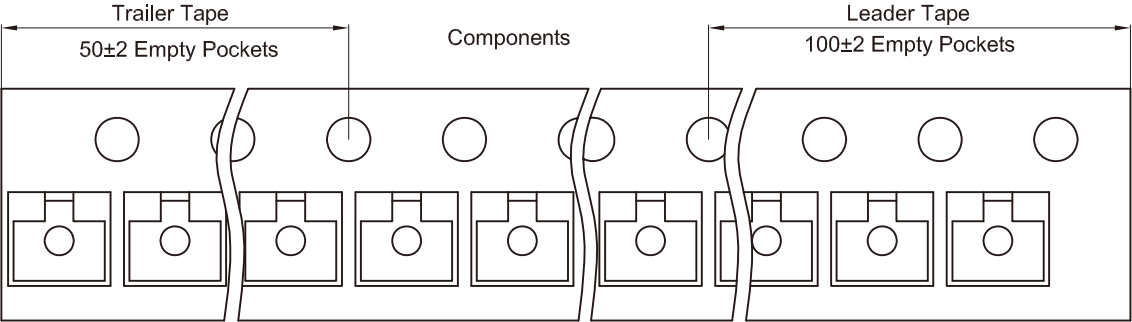
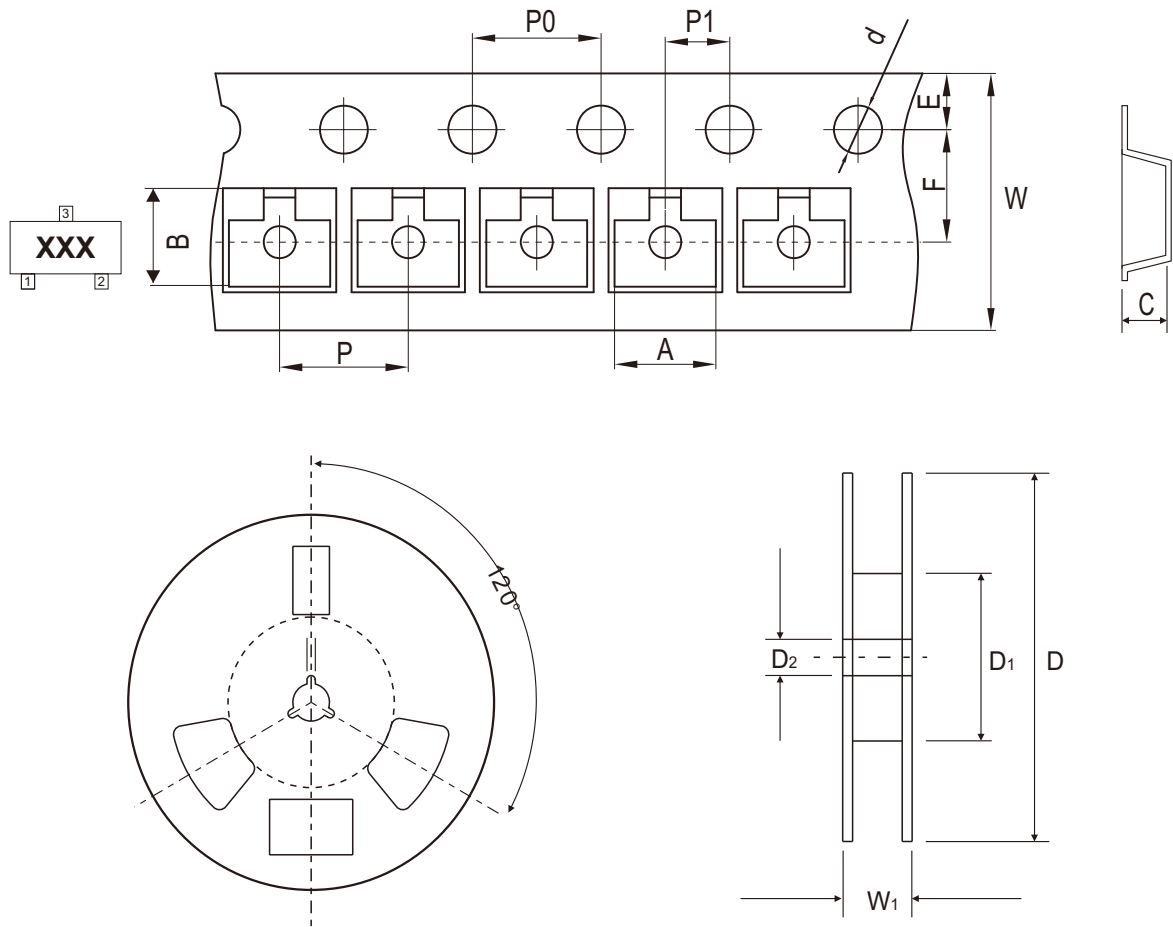


Fig.4 - Power Derating Curve



Reel Taping Specification

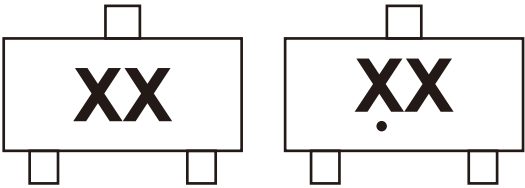


SOT-323	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.25 ± 0.05	2.55 ± 0.05	1.19 ± 0.05	1.55 ± 0.10	178 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.089 ± 0.002	0.100 ± 0.002	0.047 ± 0.002	0.061 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

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

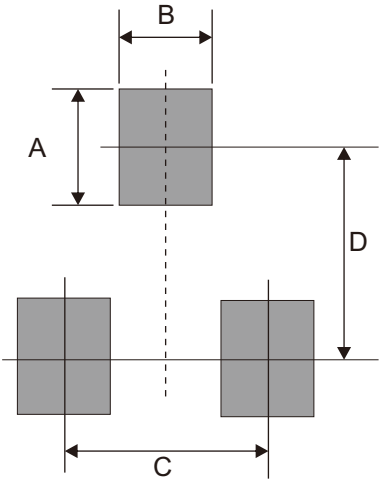


Solid dot = Control code
xx/xxx = Product type marking code

Suggested P.C.B. 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

Note: 1. The pad layout is for reference purposes only.



Standard Packaging

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