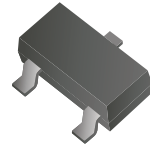


CDBT-54/S/C/A-G

Reverse Voltage: 30 Volts

Forward Current: 200 mA

RoHS Device



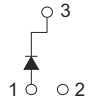
Features

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

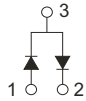
Mechanical data

- Case: SOT-23, molded plastic.
- Terminals: solderable per MIL-STD-750, method 2026.
- Approx. weight: 0.008 grams
- Packing : 3,000 pieces per 7" reel.

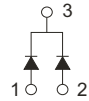
Circuit diagram



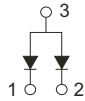
CDBT-54-G



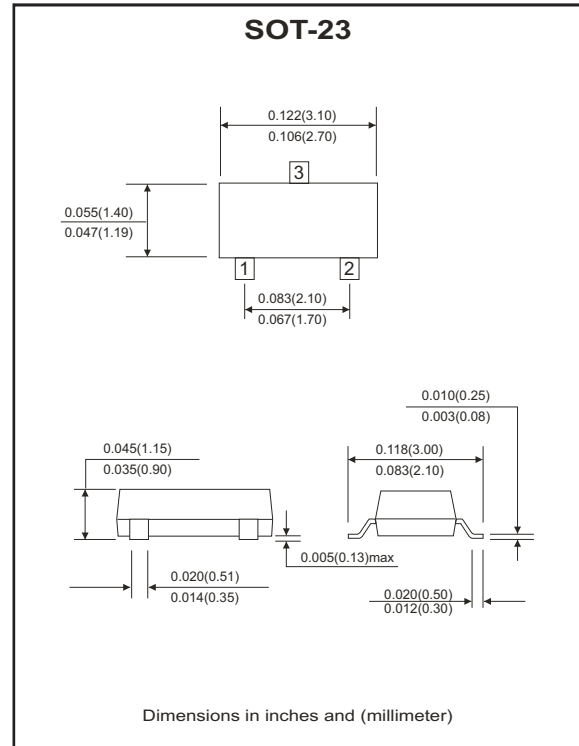
CDBT-54S-G



CDBT-54C-G



CDBT-54A-G



Maximum Ratings and Electrical Characteristics

(at Ta=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Value	Units
Repetitive peak reverse voltage	V_{RRM}		30	V
Reverse voltage	V_R		30	V
Forward current	I_F		200	mA
Peak surge forward current	I_{FSM}	$T < 1.0$ sec	600	mA
Power dissipation	P_D		225	mW
Maximum forward voltage	V_F	$@I_F = 0.1$ mA $@I_F = 1$ mA $@I_F = 10$ mA $@I_F = 30$ mA $@I_F = 100$ mA	0.24 0.32 0.40 0.50 1.00	V
Maximum reverse current	I_R	$@V_R = 25$ V	2	μ A
Maximum reverse recovery time	T_{rr}	$I_F = I_R = 10$ mA, $R_L = 100\Omega$	5	nS
Maximum diode capacitance	C_J	$V_R = 1$ V, $f = 1.0$ MHz	10	pF
Maximum junction temperature	T_J		125	°C
Storage temperature	T_{STG}		-55 to +125	°C

RATING AND CHARACTERISTIC CURVES (CDBT-54/S/C/A-G)

Fig.1- Forward characteristics

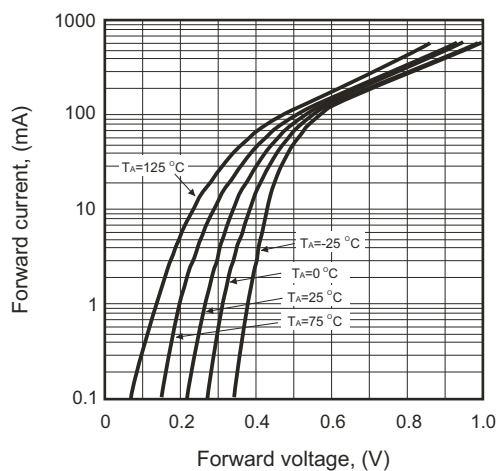


Fig.2- Reverse characteristics

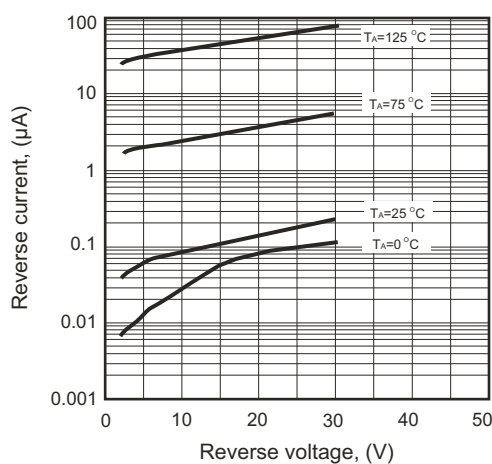


Fig.3- Capacitance between terminals characteristics

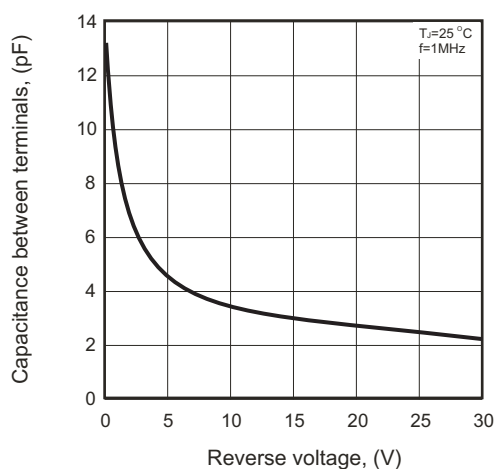
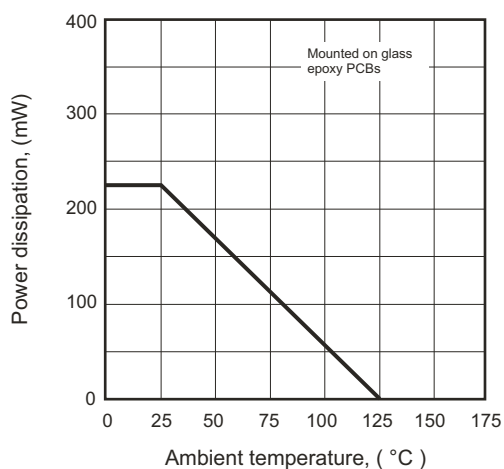
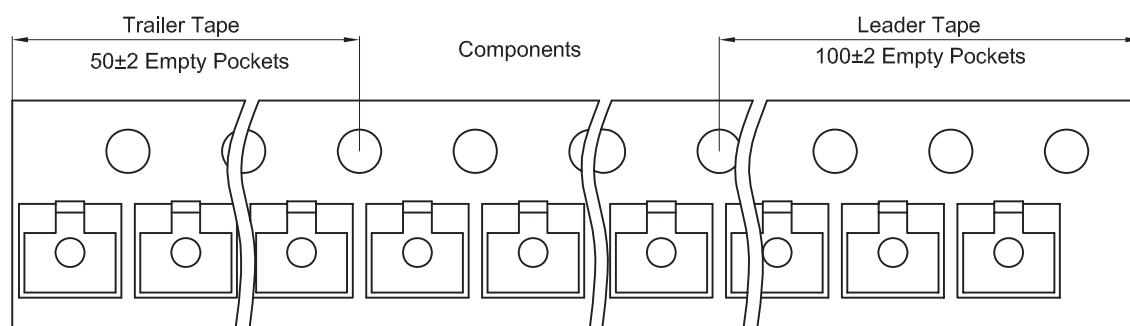
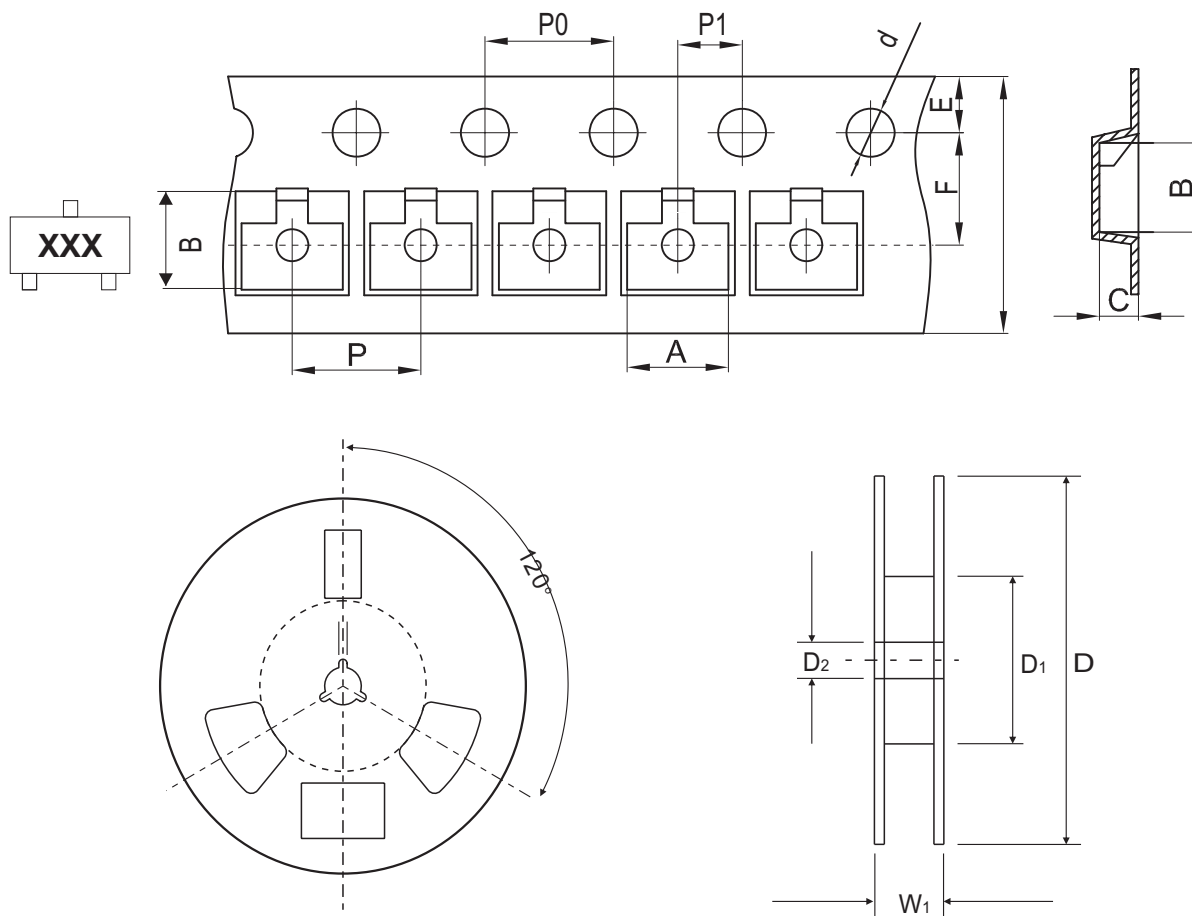


Fig.4- Power derating curve



Reel Taping Specification

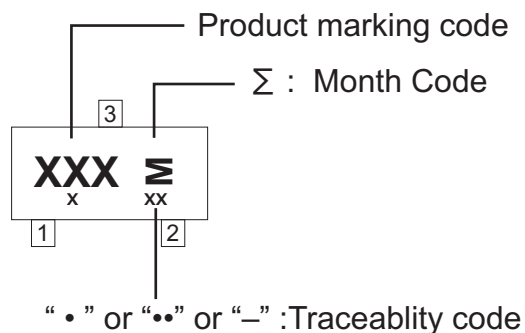


SOT-23	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 ± 0.10	1.50 ± 0.10	178 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOT-23	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 ± 1.0
	(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	
CDBT-54-G	KL1	JV3 Σ
CDBT-54A-G	KL2	B6 Σ
CDBT-54C-G	KL3	5C Σ
CDBT-54S-G	KL4	LD3 Σ



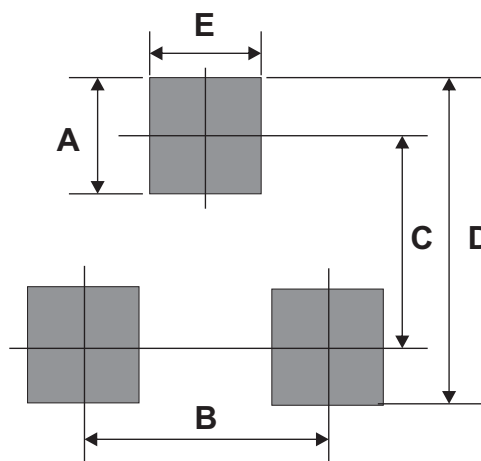
Month Code:

Month	Odd Year (per A.D.)	Even Year (per A.D.)
Jan	1	E
Feb	2	F
Wer	3	H
Apr	4	J
May	5	K
Jun	6	L

Month	Odd Year (per A.D.)	Even Year (per A.D.)
Jul	7	N
Aug	8	P
Sep	9	U
Oct	T	X
Nov	V	Y
Dec	C	Z

Suggested PAD Layout

SIZE	SOT-23	
	(mm)	(inch)
A	0.80	0.031
B	1.90	0.075
C	2.02	0.080
D	2.82	0.111
E	0.80	0.031



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-23	3,000	7