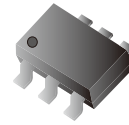


CDBV6-54T/AD/CD/SD/BR-P2-HF

RoHS Device
Halogen Free

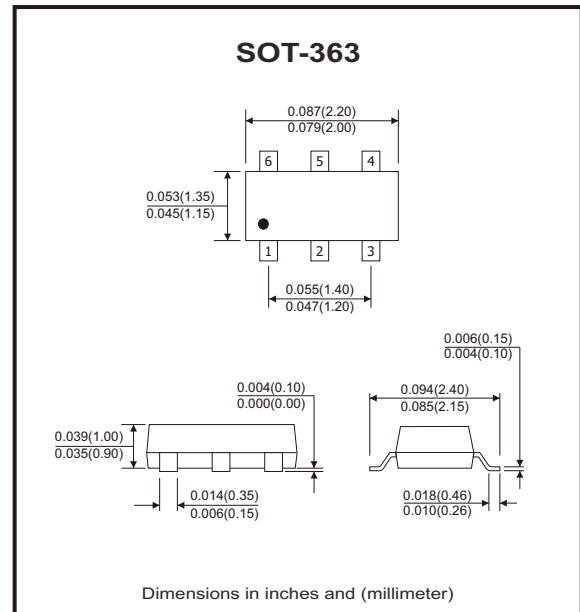


Features

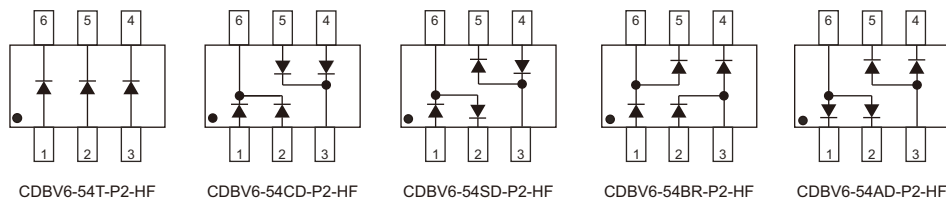
- Low forward voltage schottky rectifier.
- PN junction guard ring for transient and ESD protection.
- Small surface mount package.

Mechanical data

- Case: SOT-363, molded plastic.
- Terminal: Solderable per MIL-STD-750, method 2026.
- Mounting position: Any.



Circuit Diagram



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

Parameter	Symbol	Value	Unit
Repetitive peak reverse voltage	V_{RRM}	30	V
Peak working reverse voltage	V_{RWM}	30	
DC blocking voltage	V_R	30	
Forward continuous current	I_O	200	mA
Repetitive peak forward current	I_{FRM}	300	mA
Non-repetitive peak forward surge current @ t = 8.3ms	I_{FSM}	600	
Power dissipation	P_D	200	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	500	°C/W
Junction temperature	T_J	125	°C
Storage temperature range	T_{STG}	-55 to +150	°C

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

Parameter	Conditions	Symbol	Min.	Typ.	Max.	Unit
Reverse voltage	$I_R = 100\mu A$	V_{BR}	30			V
Reverse current	$V_R = 25V$	I_R			2	μA
Forward voltage	$I_F = 0.1mA$	V_F			240	mV
	$I_F = 1mA$				320	
	$I_F = 10mA$				400	
	$I_F = 30mA$				500	
	$I_F = 100mA$				1000	
Total capacitance	$V_R = 1V, f = 1MHz$	C_J			10	pF
Reverse recovery time	$I_F = I_R = 10mA, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$	t_{rr}			5	ns

Typical Rating and Characteristic Curves (CDBV6-54T/AD/CD/SD/BR-P2-HF)

Fig.1 - Forward Characteristics

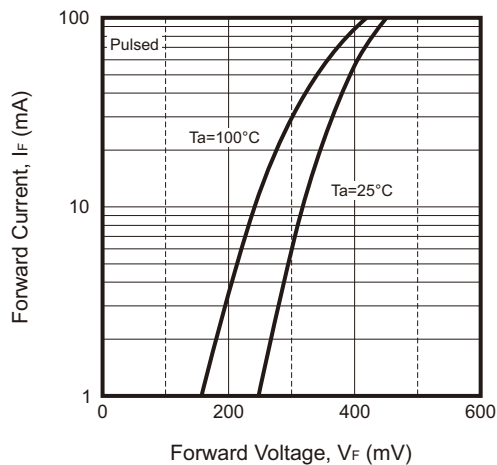


Fig.2 - Reverse Characteristics

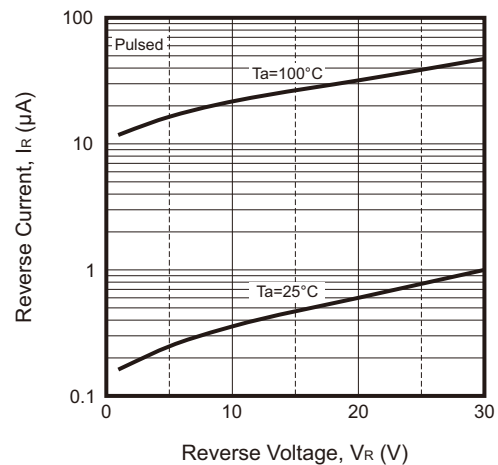


Fig.3 - Capacitance Characteristics

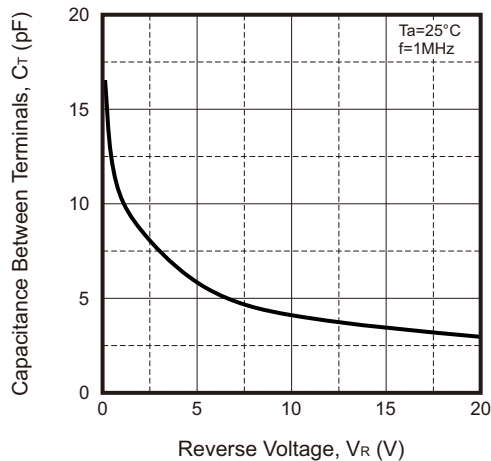
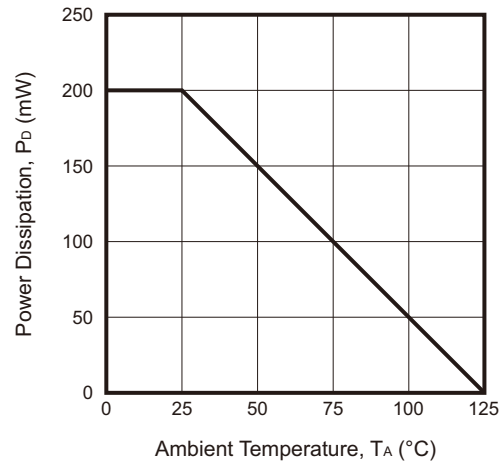
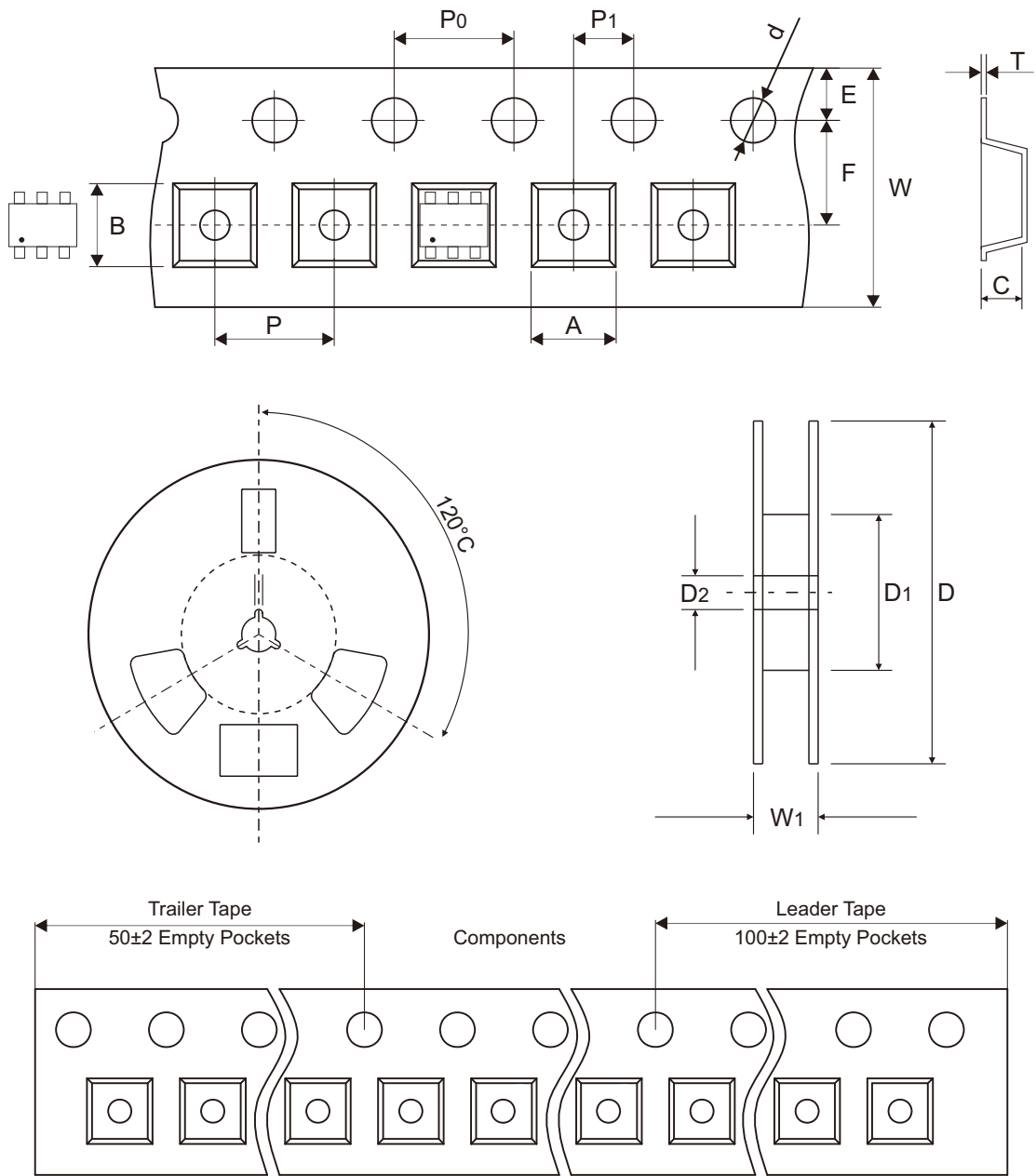


Fig.4 - Power Derating Curve



Reel Taping Specification

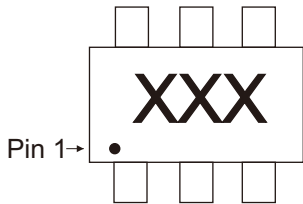


SOT-363	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.40 ± 0.10	2.55 ± 0.10	1.20 ± 0.10	1.50 + 0.10 - 0.00	178.00 ± 2.00	50.00 ± 0.50	13.00 ± 0.25
	(inch)	0.094 ± 0.004	0.100 ± 0.004	0.047 ± 0.004	0.059 + 0.004 - 0.000	7.008 ± 0.079	1.969 ± 0.020	0.512 ± 0.010

SOT-363	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.20 ± 0.02	8.00 + 0.30 - 0.10	9.50 ± 0.50
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.008 ± 0.001	0.315 + 0.012 - 0.004	0.374 ± 0.020

Marking Code

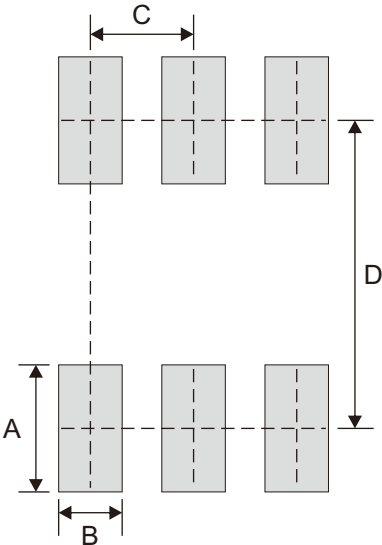
Part Number	Marking Code
CDBV6-54T-P2-HF	KLA
CDBV6-54AD-P2-HF	KL6
CDBV6-54CD-P2-HF	KL7
CDBV6-54SD-P2-HF	KL8
CDBV6-54BR-P2-HF	KLB



xxx = Product type marking code

Suggested P.C.B. PAD Layout

SIZE	SOT-363	
	(mm)	(inch)
A	0.816	0.032
B	0.40	0.016
C	0.65	0.026
D	1.94	0.076



Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-363	3,000	7