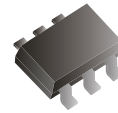


CDBV6-70BRW/DWS/DWC/DWA/TW-G

Forward Current: 70mA

Reverse Voltage: 70V

RoHS Device

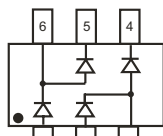
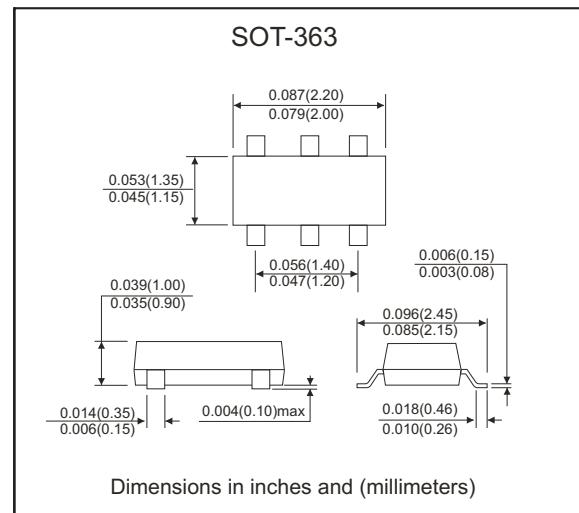


Features

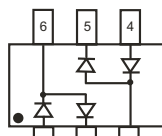
- Low forward voltage drop.
- Fast switching.
- small surface mount package.
- PN junction guard ring for transient and ESD protection.
- Available in lead Free version.

Mechanical data

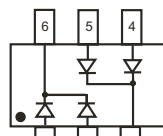
- Case: SOT-363, Molded Plastic
- Case material: UL 94V-0 flammability retardant classification.
- Terminals: Solderable per MIL-STD-202, Method 208
- Marking: Orientation: See diagrams below
- Weight: 0.006 grams (approx.)



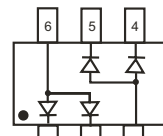
CDBV6-70BRW-G
Marking: K75



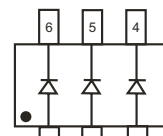
CDBV6-70DWS-G
Marking: K74



CDBV6-70DWC-G
Marking: K71



CDBV6-70DWA-G
Marking: K76



CDBV6-70TW-G
Marking: K73

Maximum Rating (at TA=25 °C unless otherwise noted)

Parameter	Symbol	Limits	Unit
Repetitive peak reverse voltage Peak working reverse voltage DC blocking voltage	V_{RRM} V_{RWM} V_R	70	V
RMS reverse voltage	$V_R(RMS)$	49	V
Forward continuous current	I_o	70	mA
Non-repetitive peak forward surge current @ $t \leq 1s$	I_{FSM}	100	mA
Power dissipation	P_D	200	mW
Thermal resistance form junction to ambient	$R_{\theta JA}$	500	°C/W
Junction temperature	T_J	125	°C
Storage temperature	T_{STG}	-55 ~ +150	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse voltage	$I_R=10\mu A$	$V_{(BR)}$	70			V
Reverse current	$V_R=50V$	I_R			0.1	μA
Forward voltage	$I_F=1mA$	V_F			0.41	V
	$I_F=15mA$				1	
Total capacitance	$V_R=0V, f=1MHz$	C_{tot}			2	pF
Reverse recovery time	$I_F=I_R=10mA$ to $I_R=1mA$, $I_{rr}=0.1 \cdot I_R$, $R_L=100\Omega$	t_{rr}			5	nS

ELECTRICAL CHARACTERISTIC CURVES (CDBV6-70BRW/DWS/DWC/DWA/TW-G)

Fig.1- Forward Characteristics

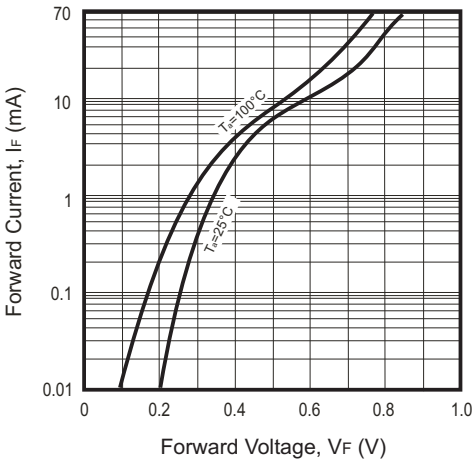


Fig.2- Reverse Characteristics

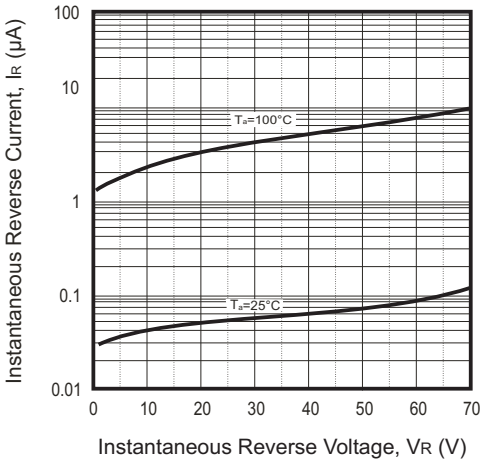


Fig.3- Capacitance Characteristics Per Diode

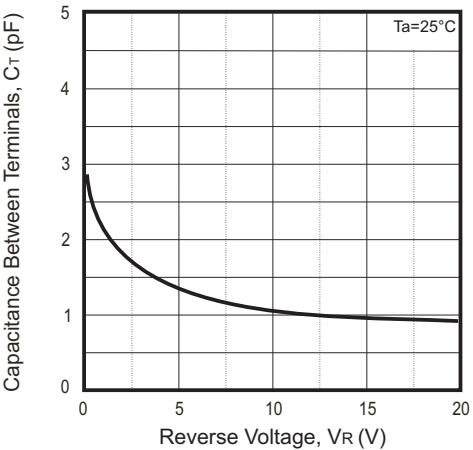
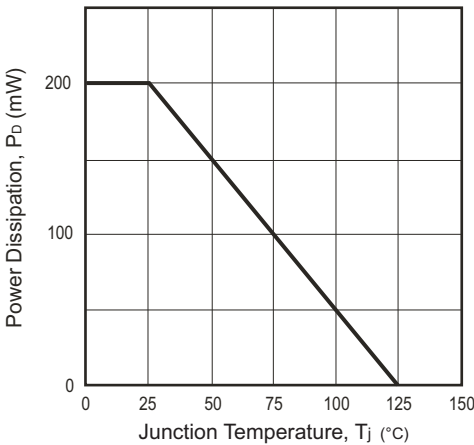
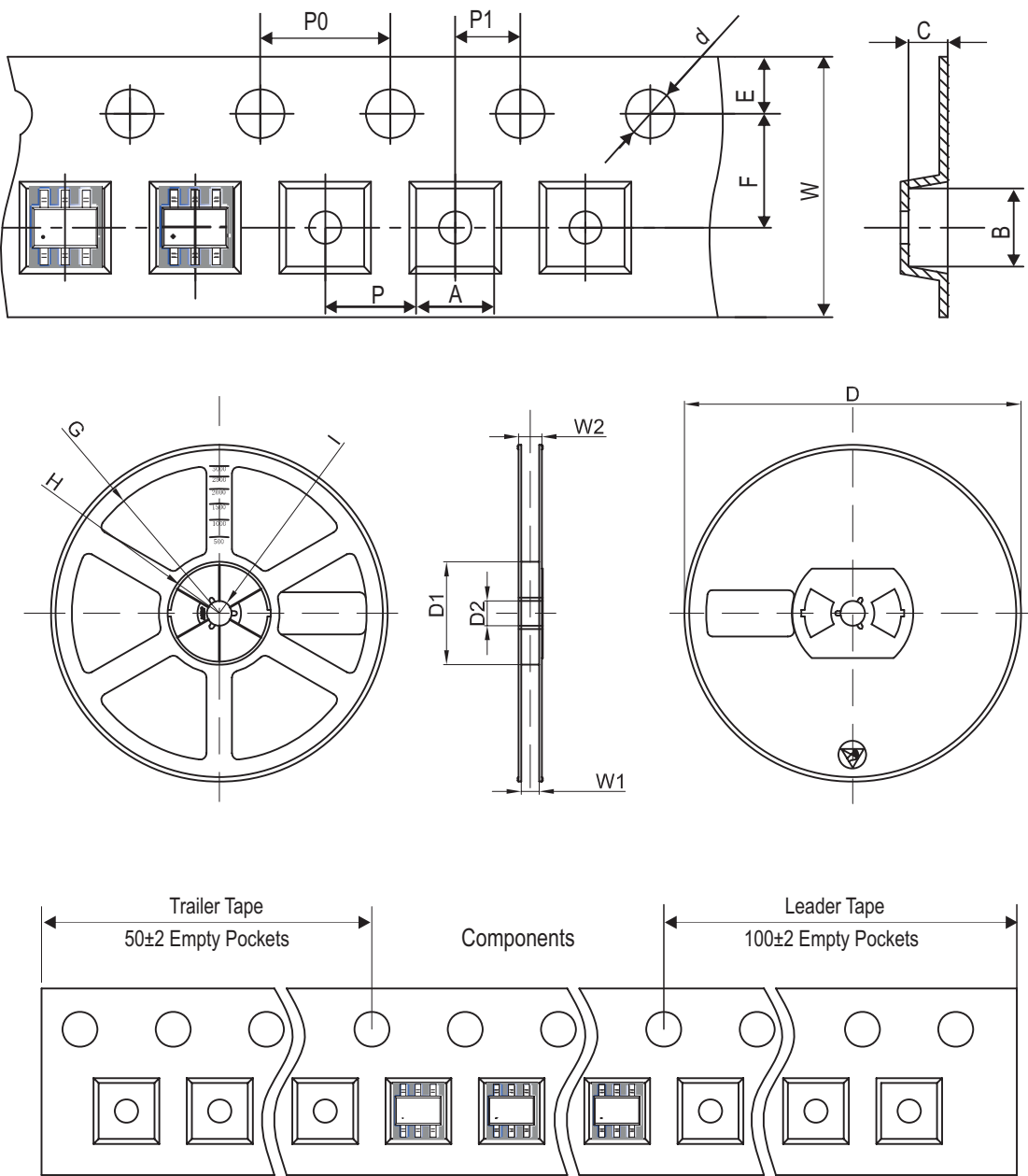


Fig.4- Power Derating Curve



Reel Taping Specification

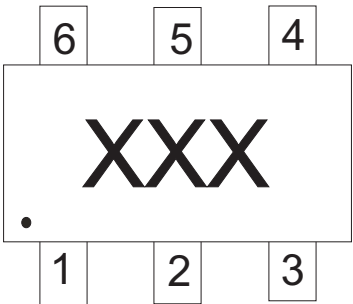


SOT-363	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	2.25 ± 0.05	2.55 ± 0.05	1.20 ± 0.05	ø1.50 ± 0.05	ø178 ± 2.00	54.40 ± 1.0	13.00 ± 1.0
	(inch)	0.087 ± 0.002	0.100 ± 0.002	0.047 ± 0.002	ø0.059 ± 0.002	ø7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOT-363	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	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.158 ± 0.004	0.158 ± 0.004	0.079 ± 0.004	0.315 + 0.012 / - 0.004	0.374 ± 0.039

Marking Code

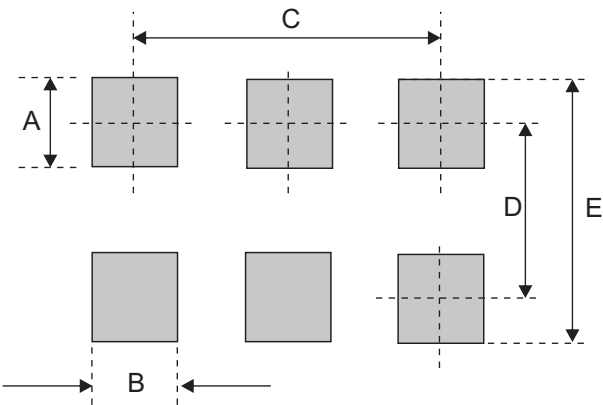
Part Number	Marking Code
CDBV6-70BRW-G	K75
CDBV6-70DWS-G	K74
CDBV6-70DWC-G	K71
CDBV6-70DWA-G	K76
CDBV6-70TW-G	K73



Product type marking code

Suggested PAD Layout

SIZE	SOT-363	
	(mm)	(inch)
A	0.80	0.031
B	0.40	0.016
C	1.30	0.051
D	1.94	0.076
E	2.74	0.108



Standard Packaging

Case Type	Qty Per Reel	Reel Size
	(Pcs)	(inch)
SOT-363	3,000	7