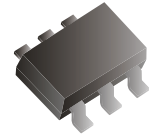


CDBV6-54T/AD/CD/SD/BR-G

Forward Current: 0.2A
Reverse Voltage: 30V
RoHS Device

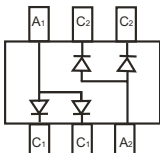
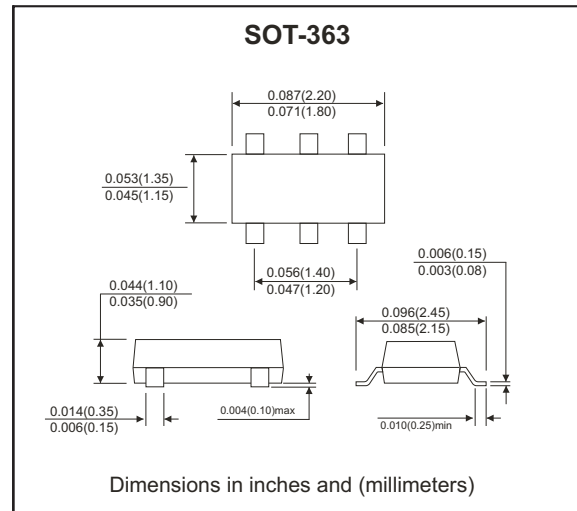


Features

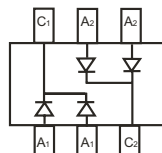
- Low forward voltage drop.
- Fast switching.
- Ultra-small surface mount package.
- PN junction guard ring for transient and ESD protection.
- Available in lead Free version.

Mechanical data

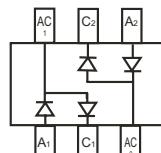
- Case: SOT-363, Molded Plastic
- Case material: UL 94V-0 flammability retardant classification.
- Terminals: Solderable per MIL-STD-202, Method 208
- Marking: Orientation: See diagrams below
- Weight: 0.006 grams (approx.)
- Marking: See diagrams below



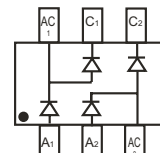
CDBV6-54AD-G*
Marking: KL6



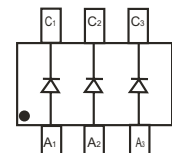
CDBV6-54CD-G*
Marking: KL7



CDBV6-54SD-G*
Marking: KL8



CDBV6-54BR-G
Marking: KLB



CDBV6-54T-G
Marking: KLA

*Symmetrical configuration, no orientation indicator.

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

Parameter	Symbol	Limits	Unit
Peak repetitive reverse voltage Working peak reverse voltage DC blocking voltage	V_{RRM} V_{RWM} V_R	30	V
Forward continuous current (Note 1)	I_F	200	mA
Repetitive peak forward current (Note 1)	I_{FRM}	300	mA
Forward surge current (Note 1) @t<1.0s	I_{FSM}	600	mA
Power dissipation (Note 1)	P_D	200	mW
Thermal resistance, junction to ambient air (Note 1)	$R_{\theta JA}$	625	°C/W
Operation and storage temperature range	T_J, T_{STG}	-65 ~ +125	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse breakdown voltage (Note 2)	$I_R=100\mu A$	$V_{(BR)R}$	30			V
Forward voltage	$I_F=0.1mA$ $I_F=1mA$ $I_F=10mA$ $I_F=30mA$ $I_F=100mA$	V_F			240 320 400 500 1000	mV
Reverse leakage current (Note 2)	$V_R=25V$	I_R			2	μA
Total capacitance	$V_R=1.0V, f=1.0MHz$	C_T			10	pF
Reverse recovery time	$I_F=I_R=10mA$ to $I_R=1.0mA, R_L=100\Omega$	t_{rr}			5	nS

Notes:

1. Device mounted on FR-4 PCB, 1×0.85×0.062 inch.
2. Short duration test pulse used to minimize self-heating effect.

ELECTRICAL CHARACTERISTIC CURVES (CDBV6-54T/AD/CD/SD/BR-G)

Fig.1 Forward Characteristics

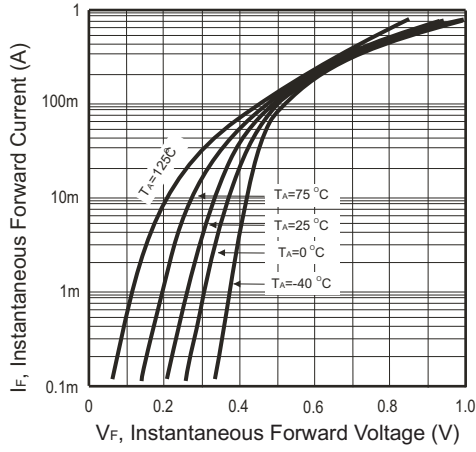


Fig.2 Reverse Characteristics

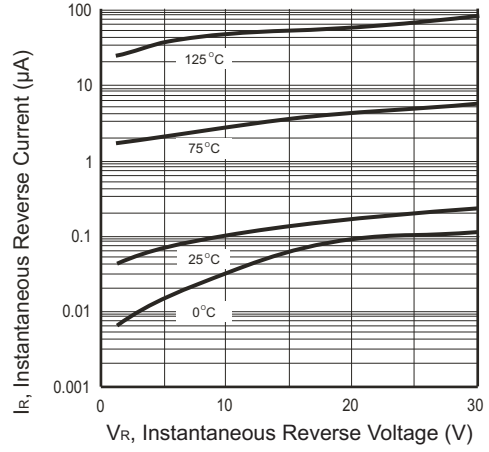


Fig.3 Capacitance Between Terminals Characteristics

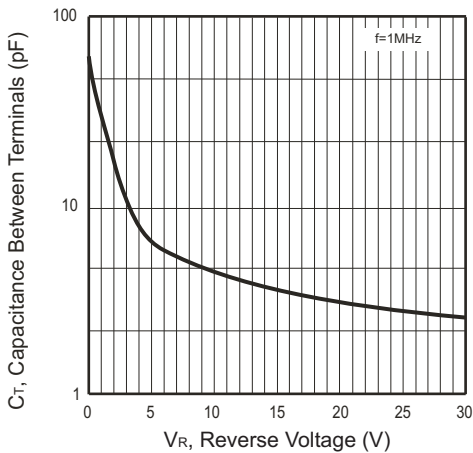


Fig.4 Power Derating Curve

