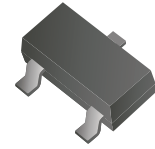


## CDSV3-16-G/56-G/70-G/99-G

**Reverse Voltage: 75 Volts**  
**Forward Current: 300 mA**  
**RoHS Device**



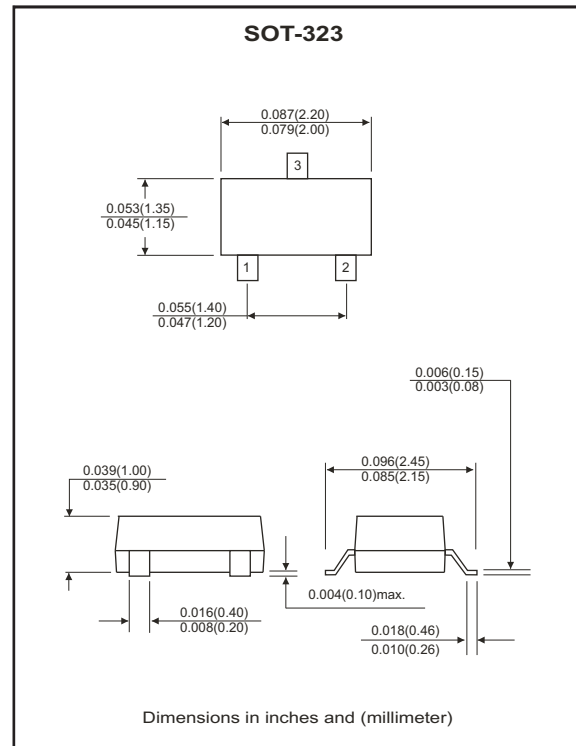
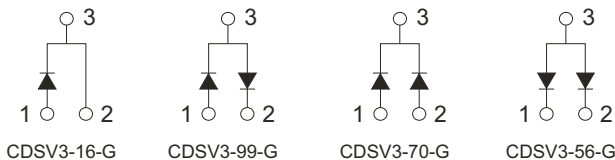
### Features

- Design for mounting on small surface.
- High speed switching.
- High mounting capability, strong surge withstand, high reliability.

### Mechanical data

- Case: SOT-323, molded plastic.
- Terminals: solderable per MIL-STD-750, method 2026.
- Approx. weight: 0.006 grams

### Circuit diagram



### Maximum Ratings and Electrical Characteristics

(at Ta=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Value	Units
Repetitive peak reverse voltage	$V_{RRM}$		75	V
Reverse voltage	$V_R$		75	V
Forward current	$I_F$		300	mA
Peak surge forward current	$I_{FSM}$	T=1.0 $\mu$ S	2	A
Power dissipation	$P_D$		200	mW
Maximum forward voltage	$V_F$	@ $I_F=1$ mA @ $I_F=10$ mA @ $I_F=50$ mA @ $I_F=150$ mA	0.715 0.855 1.0 1.25	V
Maximum reverse current	$I_R$	@ $V_R=20$ V @ $V_R=75$ V @ $V_R=25$ V, $T_J=150$ °C @ $V_R=75$ V, $T_J=150$ °C	0.025 2.5 30 50	$\mu$ A
Maximum reverse recovery time	$T_{rr}$	$I_F=10$ mA, $V_R=6$ V	4	nS
Typical diode capacitance	$C_J$	$V_R=0$ V, $f=1.0$ MHz	2	pF
Maximum junction temperature	$T_J$		-65~+150	°C
Storage temperature	$T_{STG}$		-65 to +150	°C

## RATING AND CHARACTERISTIC CURVES (CDSV3-16-G/56-G/70-G/99-G)

Fig.1 - Forward Characteristics

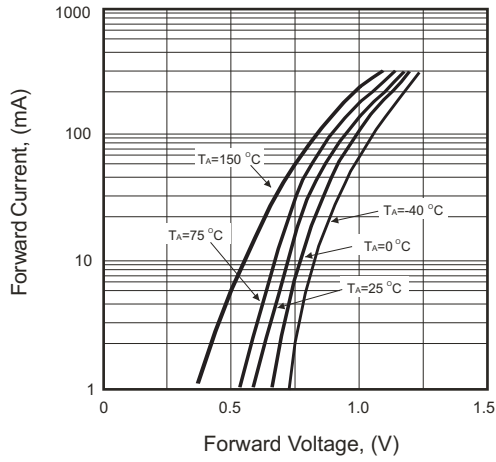


Fig.2 - Typical Reverse Characteristics

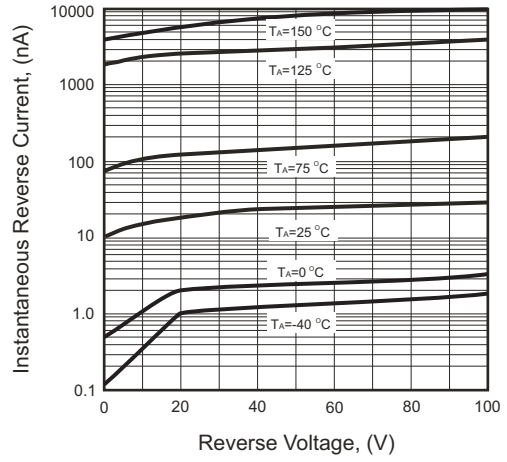


Fig.3 - Typical Capacitance vs. Reverse Voltage

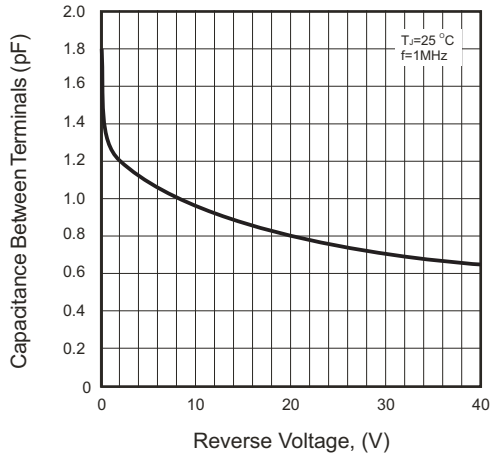


Fig.4 - Reverse Recovery Time vs. Forward Current

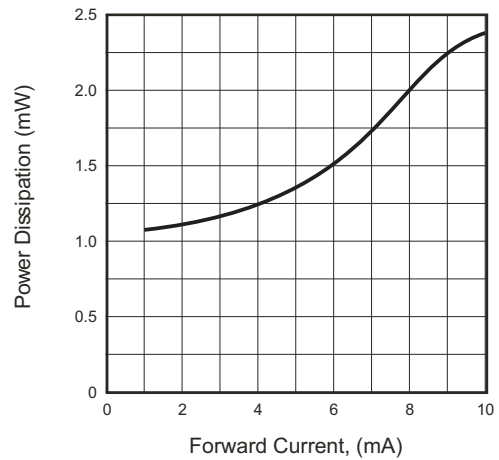
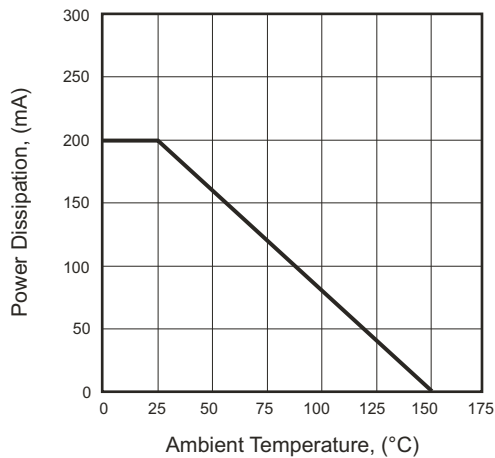
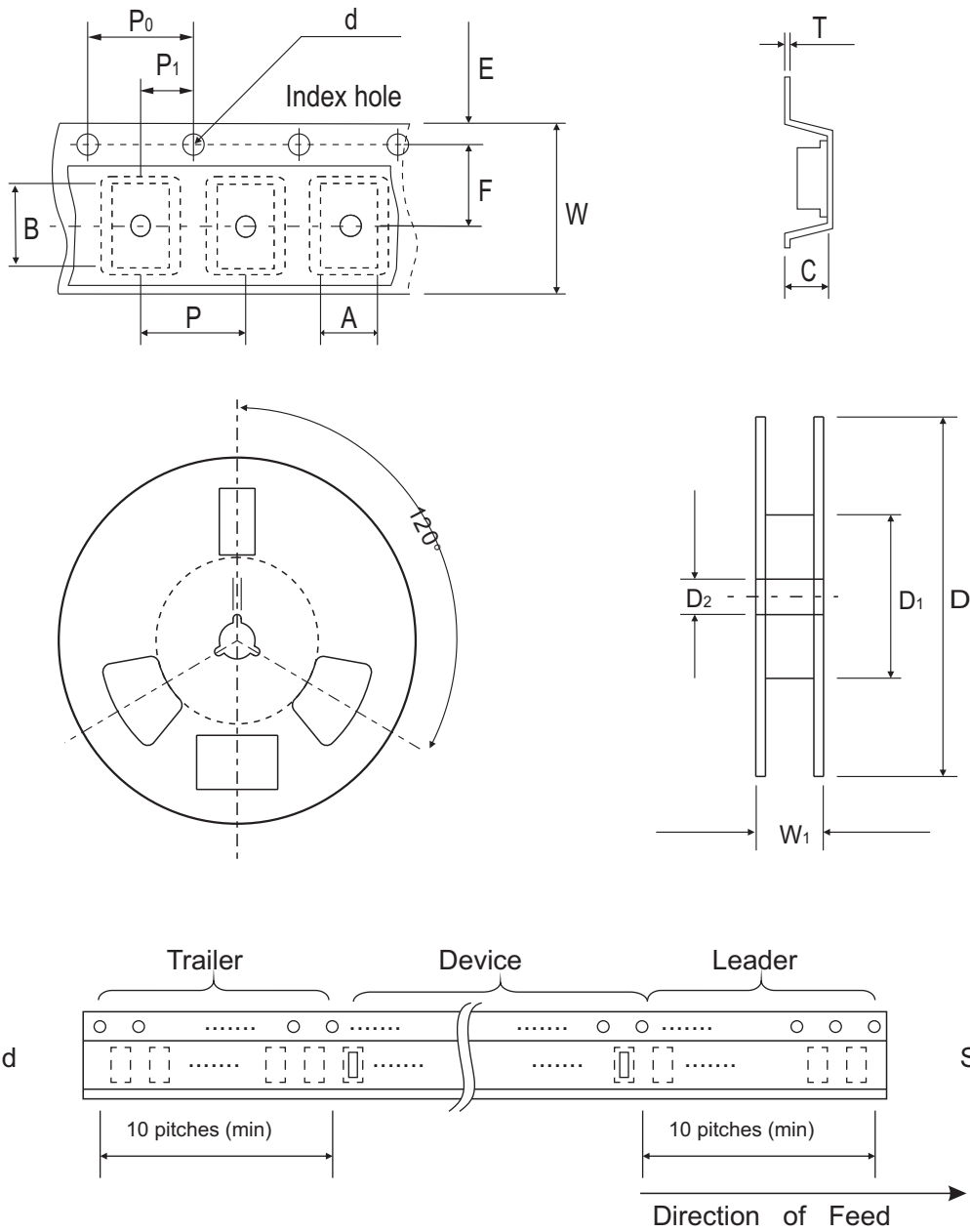


Fig.5 - Power Derating Curve, Total Package



## Reel Taping Specification

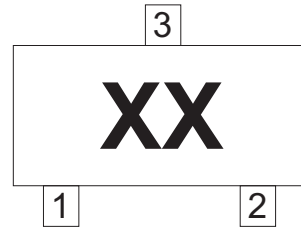


SOT-323	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	$2.25 \pm 0.10$	$2.55 \pm 0.10$	$1.19 \pm 0.10$	$1.55 \pm 0.10$	$178 \pm 1.00$	$54.40 \pm 0.40$	$13.0 \pm 0.20$
	(inch)	$0.089 \pm 0.004$	$0.100 \pm 0.004$	$0.047 \pm 0.004$	$0.061 \pm 0.004$	$7.008 \pm 0.039$	$2.142 \pm 0.016$	$0.512 \pm 0.008$

SOT-323	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	$1.75 \pm 0.10$	$3.50 \pm 0.05$	$4.00 \pm 0.10$	$4.00 \pm 0.10$	$2.00 \pm 0.10$	$8.00 + 0.30 / - 0.10$	$9.50 \pm 1.00$
	(inch)	$0.069 \pm 0.004$	$0.138 \pm 0.002$	$0.158 \pm 0.004$	$0.158 \pm 0.004$	$0.079 \pm 0.004$	$0.315 + 0.012 / - 0.004$	$0.374 \pm 0.039$

## Marking Code

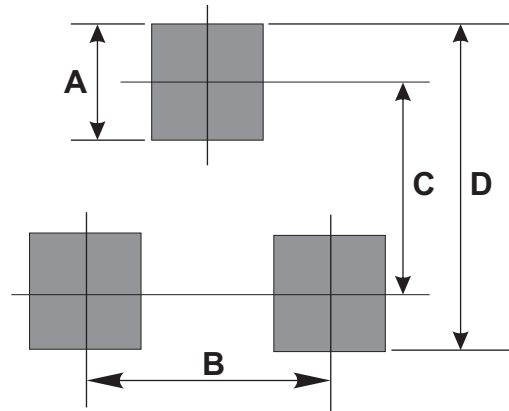
Part Number	Marking Code
CDBV3-16-G	A2
CDBV3-56-G	KJC
CDBV3-70-G	KJA
CDBV3-99-G	KJG



xx/xxx = Product type marking code

## Suggested PAD Layout

SIZE	SOT-323	
	(mm)	(inch)
A	0.80	0.031
B	1.30	0.051
C	1.94	0.076
D	2.74	0.108



## Standard Packaging

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