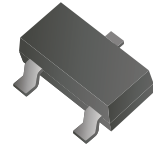


## CDST-4148-G

Reverse Voltage: 75 Volts

Forward Current: 150 mA

RoHS Device



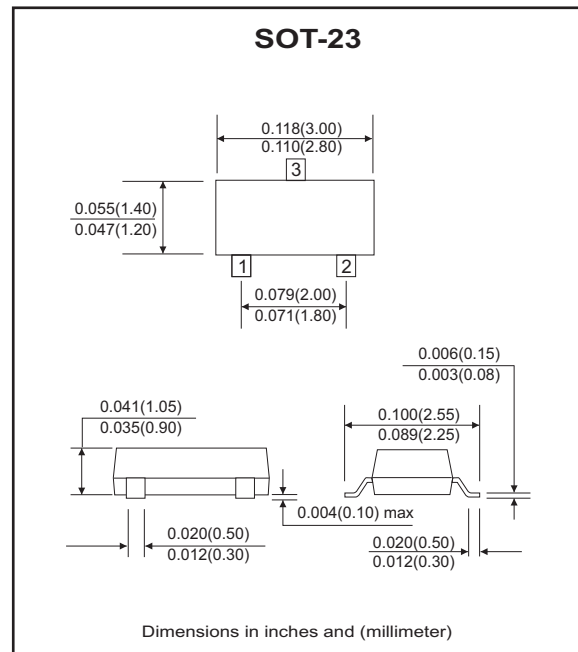
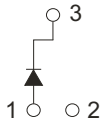
### Features

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

### Mechanical data

- Case: SOT-23, molded plastic.
- Terminals: solderable per MIL-STD-750, method 2026.
- Approx. weight: 0.0078 grams

### Circuit diagram



## Maximum Ratings and Electrical Characteristics, Single Diode

(at Ta=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Units
Peak Repetitive peak reverse voltage	$V_{RRM}$				75	V
RMS reverse voltage	$V_{RMS}$				53	V
DC Blocking voltage	$V_{DC}$				75	V
Forward continuous current	$I_{FM}$				300	mA
Average forward current	$I_o$				150	mA
Peak forward surge current	$I_{FSM}$	T=1.0 $\mu$ S T=1.0 S			2.0 1.0	A
Power dissipation	$P_D$				350	mW
Thermal resistance junction to ambient	$R_{\theta JA}$				357	°C/W
Reverse breakdown voltage	$V_{(BR)R}$	$I_R=100\mu A$	75			V
Forward voltage	$V_F$	@ $I_F=1mA$ @ $I_F=10mA$ @ $I_F=50mA$ @ $I_F=150mA$			0.715 0.855 1.0 1.25	V
Reverse current	$I_R$	@ $V_R=20V$ @ $V_R=75V$			25 2.5	nA $\mu A$
Reverse recovery time	$T_{rr}$	$I_F=I_R=10mA$ , $1\tau_r=0.1*I_R$ $R_L=100\Omega$			4	nS
Capacitance between terminals	$C_T$	$V_R=0V$ , $f=1.0MHz$			2	pF
Junction temperature	$T_J$				+150	°C
Storage temperature	$T_{STG}$		-65		+150	°C

## RATING AND CHARACTERISTIC CURVES (CDST-4148-G)

Fig.1 - Forward Characteristics

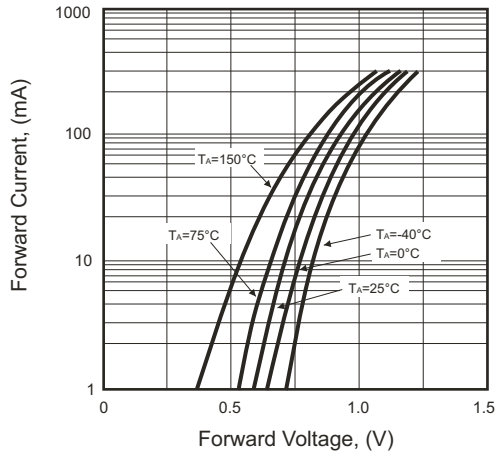


Fig.2 - Power Derating Curve

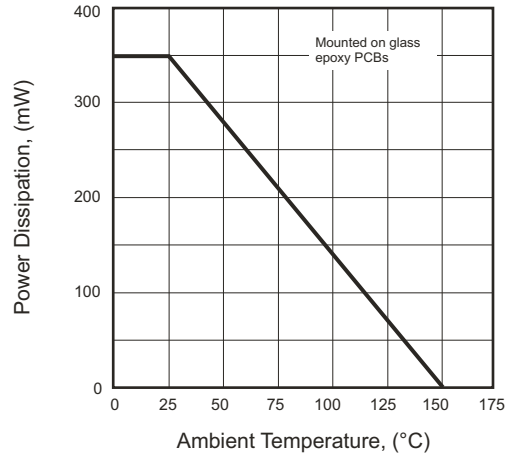


Fig.3 - Reverse Characteristics

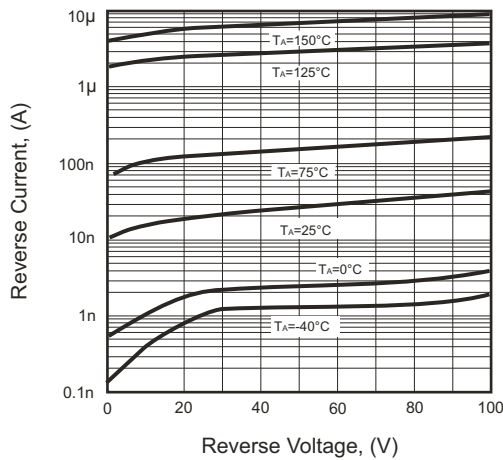


Fig.4 - Capacitance Between Terminals Characteristics

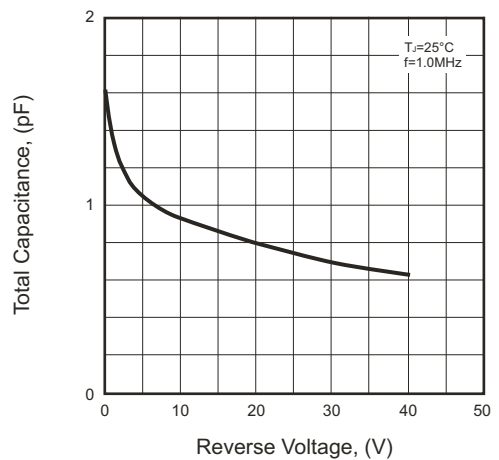


Fig.5 - Forward Characteristics

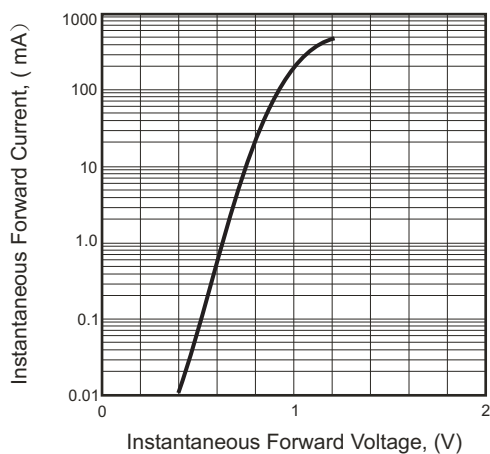
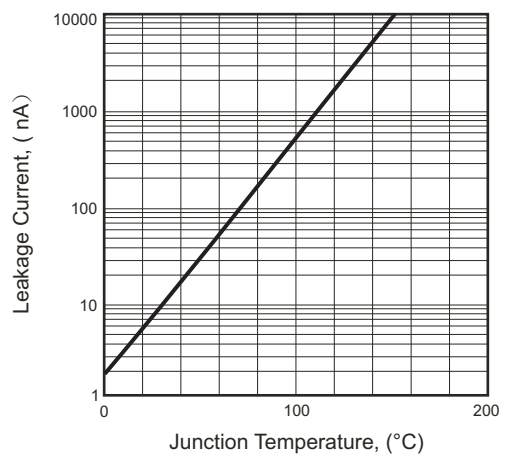
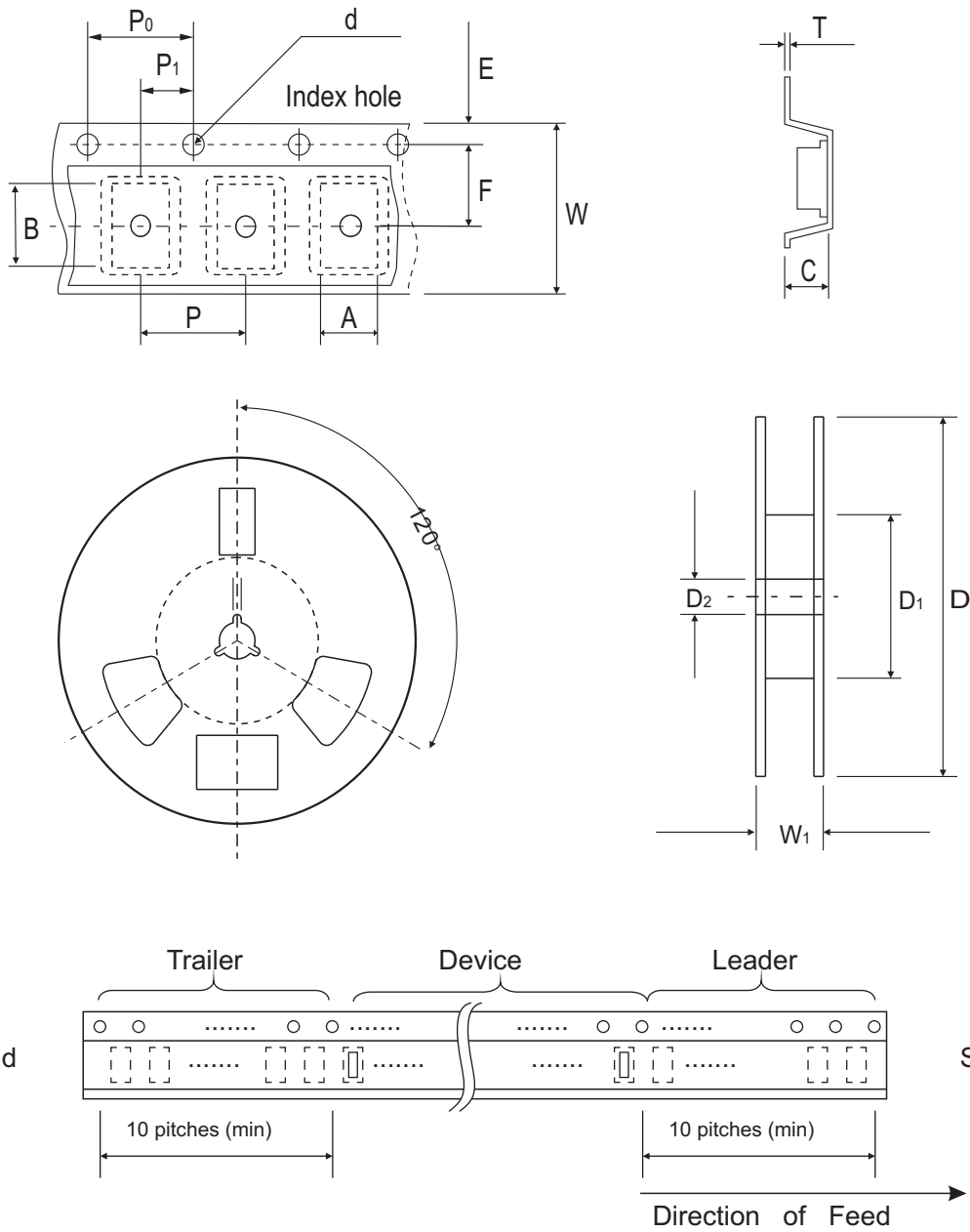


Fig.6 - Leakage Current vs Junction Temperature



## Reel Taping Specification

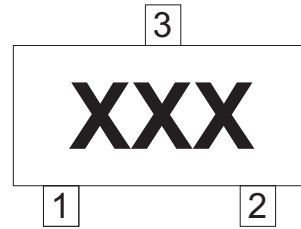


SOT-23	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	$3.15 \pm 0.10$	$2.77 \pm 0.10$	$1.22 \pm 0.10$	$1.50 \pm 0.10$	$178 \pm 1.00$	$54.40 \pm 0.40$	$13.00 \pm 0.20$
	(inch)	$0.124 \pm 0.004$	$0.109 \pm 0.004$	$0.048 \pm 0.004$	$0.059 \pm 0.004$	$7.008 \pm 0.039$	$2.142 \pm 0.016$	$0.512 \pm 0.008$

SOT-23	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	$1.75 \pm 0.10$	$3.50 \pm 0.05$	$4.00 \pm 0.10$	$4.00 \pm 0.10$	$2.00 \pm 0.10$	$8.00 \pm 0.30 / - 0.10$	$9.50 \pm 1.00$
	(inch)	$0.069 \pm 0.004$	$0.138 \pm 0.002$	$0.158 \pm 0.004$	$0.158 \pm 0.004$	$0.079 \pm 0.004$	$0.315 \pm 0.012 / - 0.004$	$0.374 \pm 0.039$

## Marking Code

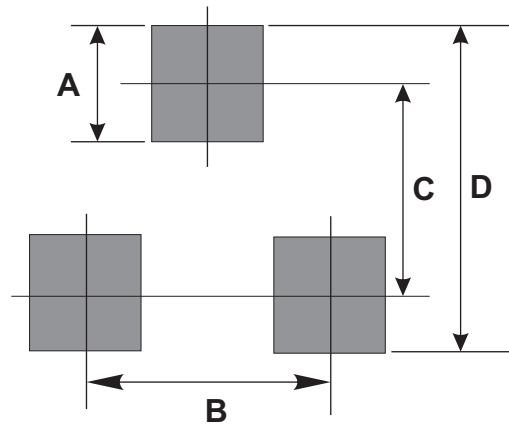
Part Number	Marking Code
CDST-4148-G	KA2



xxx = Product type marking code

## 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



## Standard Packaging

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

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