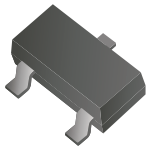
CDST-4148-G

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.

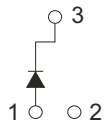
Mechanical data

-Case: SOT-23, molded plastic.

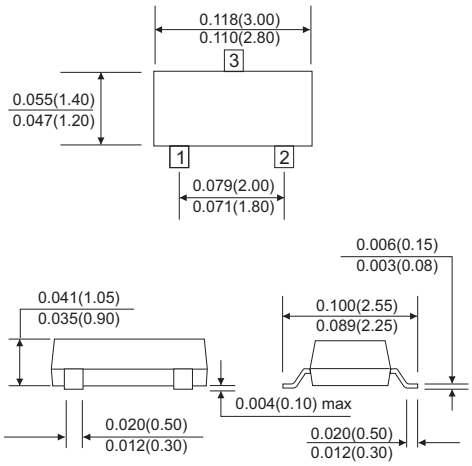
-Terminals: solderable per MIL-STD-750, method 2026.

-Approx. weight: 0.0078 grams

Circuit diagram



SOT-23



Dimensions in inches and (millimeter)

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 continous current	I_{FM}				300	mA
Average forward current	I_O				150	mA
Peak forward surge current	I_{FSM}	T=1.0 μS 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=100μA	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			25	nA
		@V_R=75V			2.5	μA
Reverse recovery time	T_{rr}	I_F=I_R=10mA, 1rr=0.1*I_R R_L=100Ω			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

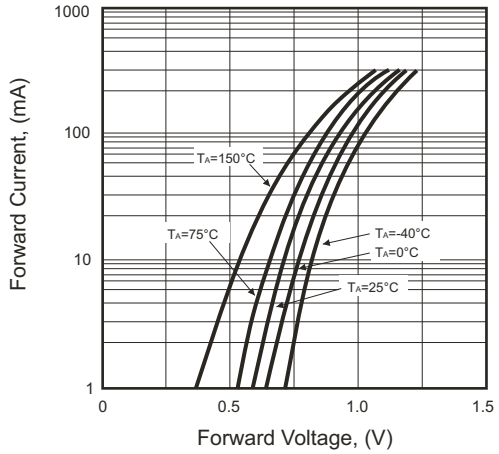


Fig.2 - Power Derating Curve

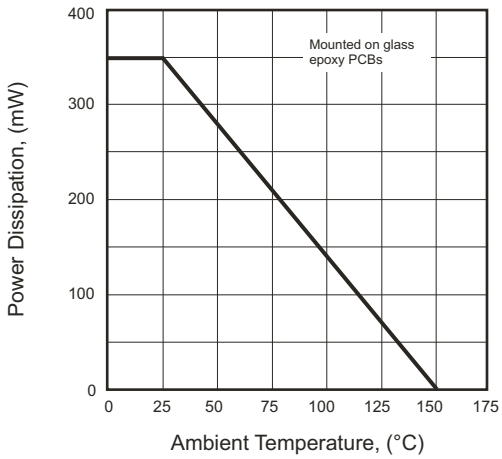


Fig.3 - Reverse Characteristics

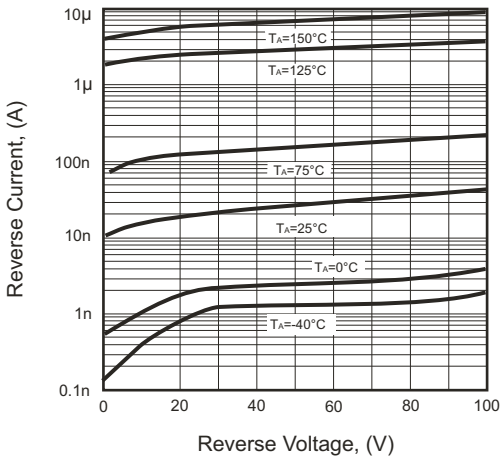


Fig.4 - Capacitance Between Terminals Characteristics

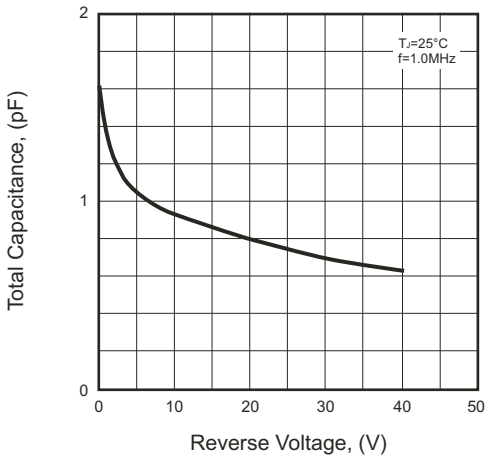


Fig.5 - Forward Characteristics

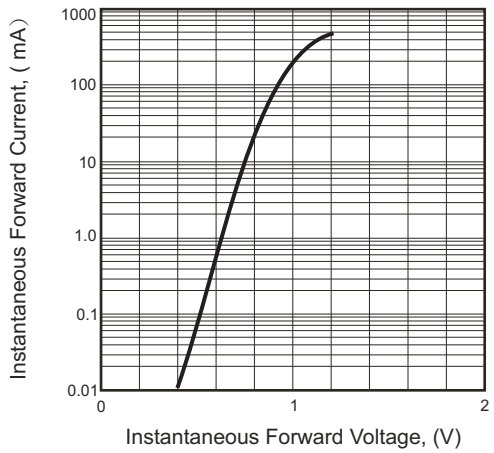
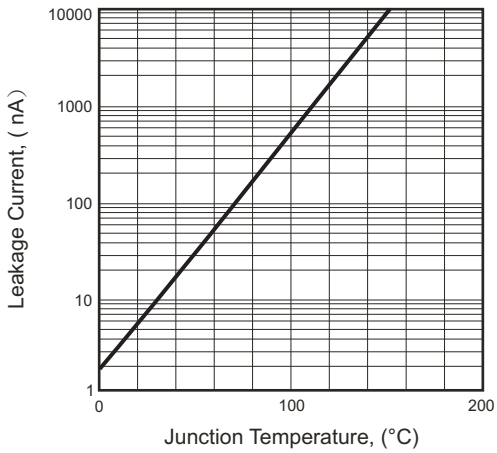
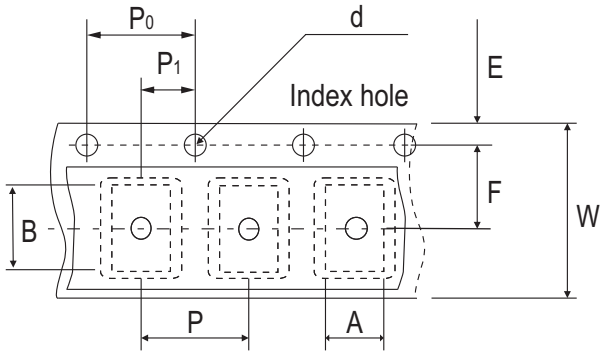
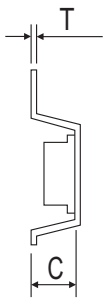


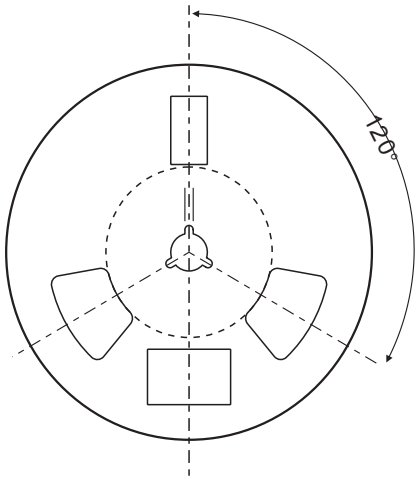
Fig.6 - Leakage Current vs Junction Temperature

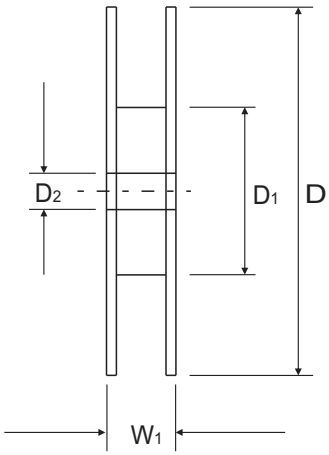


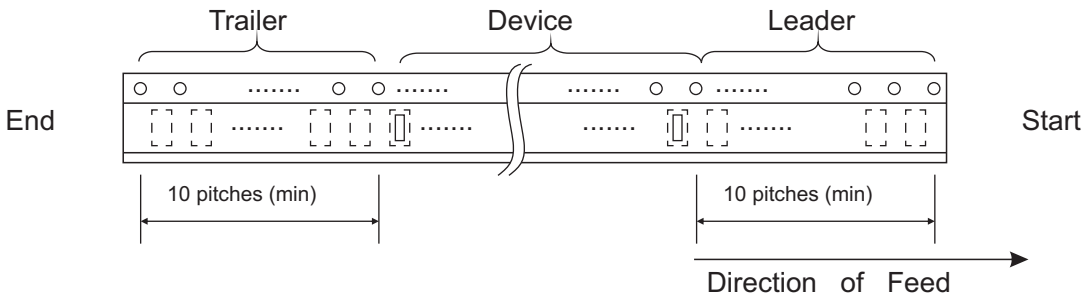
Reel Taping Specification









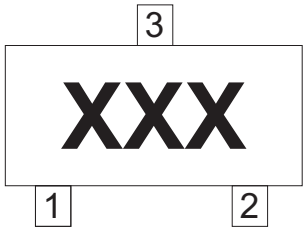


	SYMBOL	A	B	C	d	D	D1	D2
SOT-23	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 ± 0.10	1.50 + 0.10	178 ± 1.00	54.40 ± 0.40	13.00 ± 0.20
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	0.059 + 0.004	7.008 ± 0.039	2.142 ± 0.016	0.512 ± 0.008

	SYMBOL	E	F	P	P0	P1	W	W1
SOT-23	(mm)	1.75 ± 0.10	3.50 ± 0.05	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 ± 0.002	0.158 ± 0.004	0.158 ± 0.004	0.079 ± 0.004	0.315 + 0.012 / - 0.004	0.374 ± 0.039

Marking Code

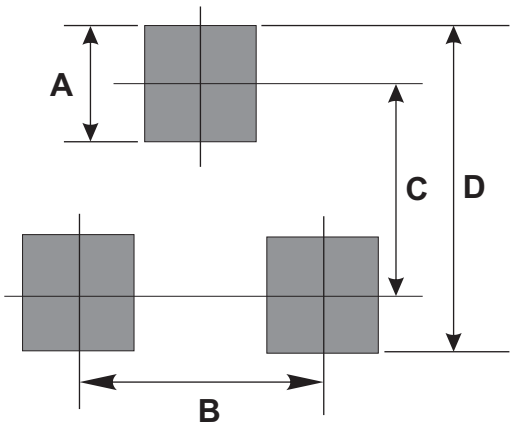
Part Number	Marking Code
CDST-4148-G	KA2



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