

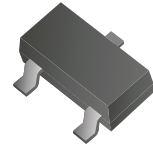
CDST-6100-HF

Reverse Voltage : 70 V

Forward Current : 200 mA

RoHS Device

Halogen Free



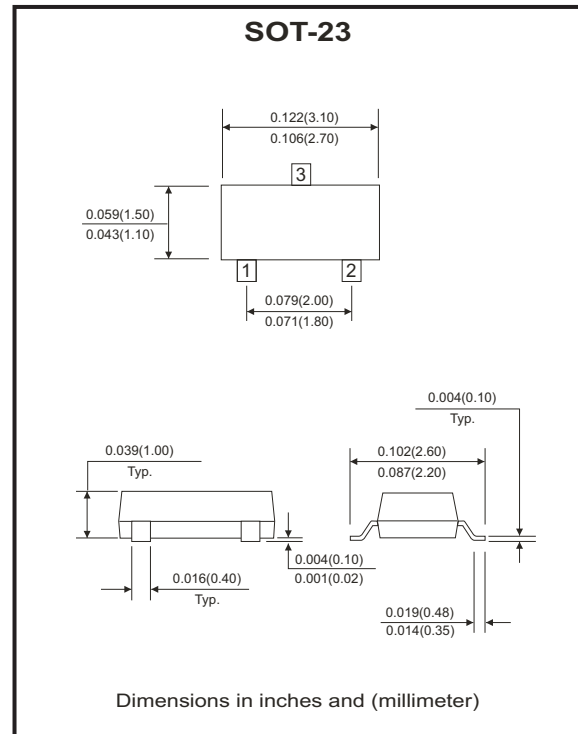
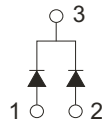
Features

- High conductance.
- Fast switching.
- Surface mount package ideally suited for automatic insertion.

Mechanical data

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

Circuit Diagram



Maximum Rating (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Limit	Unit
Continuous reverse voltage		V_R	70	V
Average rectified output current		I_o	200	mA
Peak surge Continuous current	$t < 1.0\mu\text{s}$	I_{FSM}	2	A
Power dissipation		P_D	350	mW
Typical thermal resistance	Junction to ambient	$R_{\theta JA}$	357	$^\circ\text{C}/\text{W}$
Operating junction temperature range		T_j	150	$^\circ\text{C}$
Storage temperature range		T_{STG}	-65 ~ +150	$^\circ\text{C}$

Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise specified)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse breakdown voltage	$I_R = 100\mu\text{A}$	$V_{(BR)}$	70			V
Forward voltage	$I_F = 1\text{mA}$	V_F	0.55		0.7	V
	$I_F = 100\text{mA}$	V_F	0.85		1.1	V
Reverse leakage current	$V_R = 50\text{V}$	I_R			0.1	μA
Junction capacitance	$V_R = 0, f = 1\text{MHz}$	C_j			2.5	pF
Reverse recovery time	$I_F = I_R = 10\text{mA}, I_{rr} = 0.1 \times I_R, R_L = 100\Omega$	T_{rr}			4	nS

RATING AND CHARACTERISTIC CURVES (CDST-6100-HF)

Fig.1 - Forward Characteristics

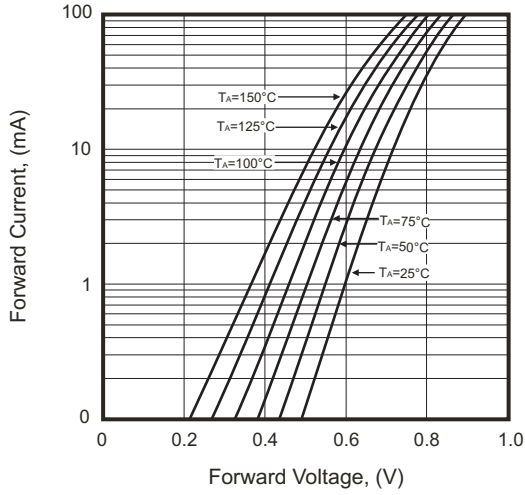


Fig.2 - Reverse Characteristics

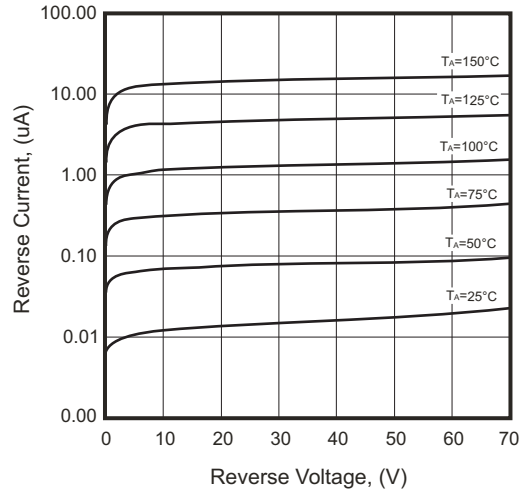


Fig.3 - Capacitance Between Terminals Characteristics

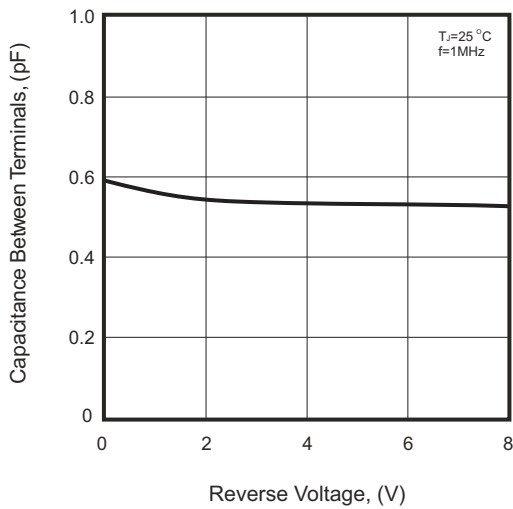
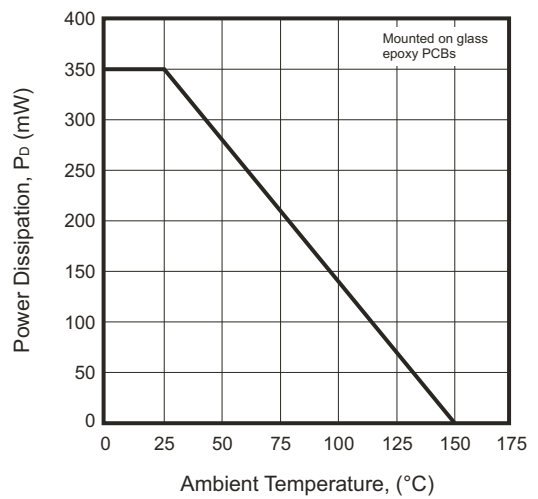
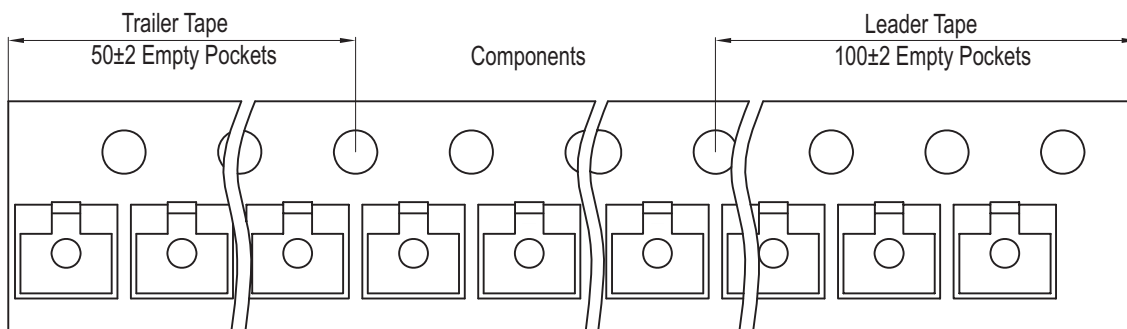
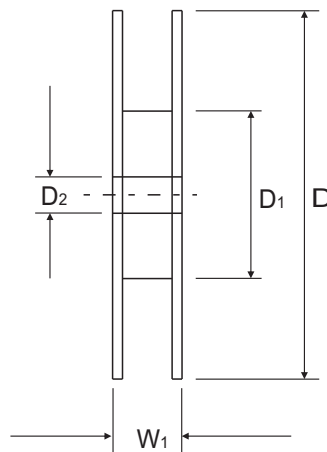
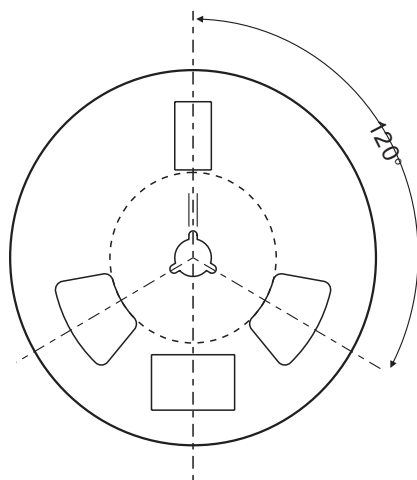
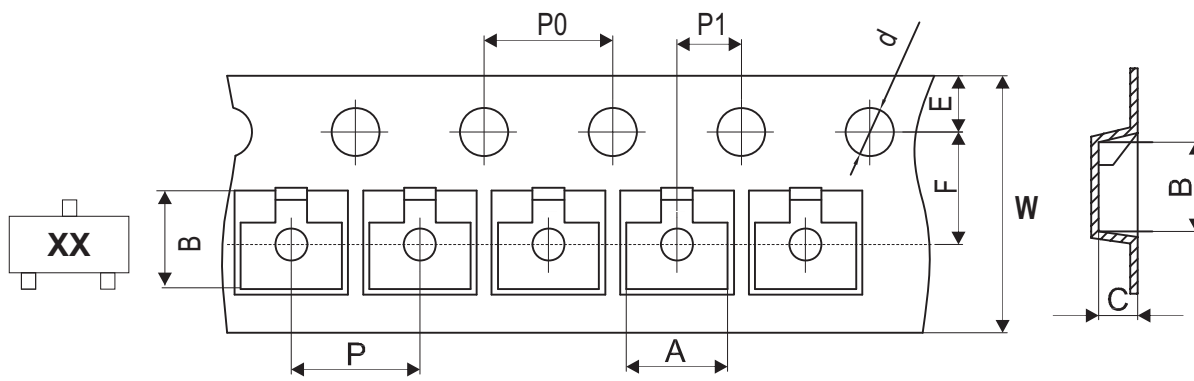


Fig.4- Power Derating Curve



Reel Taping Specification

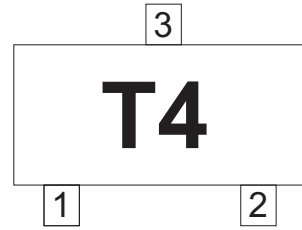


SOT-23	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 ± 0.10	1.50 ± 0.10	178.00 ± 1.00	54.40 ± 0.50	13.00 ± 0.50
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	0.059 ± 0.004	7.008 ± 0.039	2.142 ± 0.020	0.512 ± 0.020

SOT-23	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	8.00 + 0.30 / - 0.10	12.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 + 0.012 / - 0.004	0.492 ± 0.039

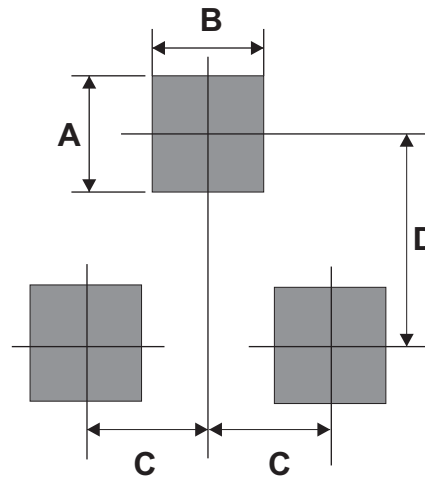
Marking Code

Part Number	Marking Code
CDST-6100-HF	T4



Suggested PAD Layout

SIZE	SOT-23	
	(mm)	(inch)
A	0.90	0.035
B	0.80	0.031
C	0.95	0.037
D	2.00	0.079
E	2.90	0.114



Standard Packaging

Case Type	Qty Per Reel	Reel Size
	(Pcs)	(inch)
SOT-23	3,000	7