

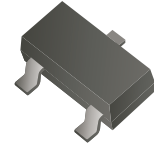
CDST-21C-HF

Reverse Voltage: 250 Volts

Forward Current: 200 mA

RoHS Device

Halogen Free

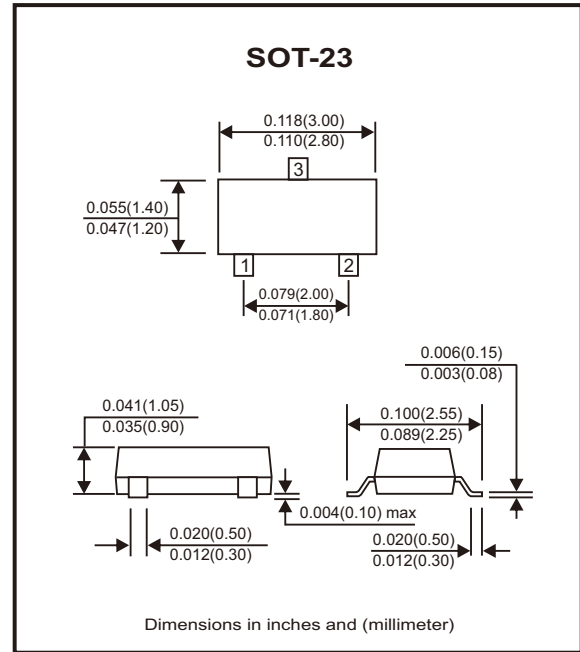


Features

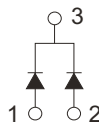
- Fast switching speed.
- Surface mount package ideally suited for automatic insertion.
- For general purpose switching applications.
- High conductance.

Mechanical data

- Case: SOT-23, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Weight: 0.008 grams (Approx.)



Circuit Diagram



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

Parameter	Conditions	Symbol	Value	Unit
Repetitive peak reverse voltage		V_{RRM}	250	V
Working peak reverse voltage		V_{RWM}	250	V
DC reverse voltage		V_R	250	V
Average rectified output current		I_o	200	mA
Non-Repetitive peak forward surge current	$t=8.3ms$	I_{FSM}	2.5	A
Repetitive peak forward surge current		I_{FRM}	625	mA
Power dissipation		P_D	225	mW
Thermal resistance	Junction to ambient	$R_{\theta JA}$	555	°C/W
Junction temperature range		T_J	150	°C
Storage temperature range		T_{STG}	-55 to +150	°C

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

Parameter	Conditions	Symbol	Min.	Max.	Unit
Reverse breakdown voltage	$I_R = 100\mu\text{A}$	$V_{(BR)}$	250		V
Reverse voltage leakage current	$V_R = 200\text{V}$	I_R		0.1	μA
Forward voltage	$I_F = 100\text{mA}$ $I_F = 200\text{mA}$	V_F		1000 1250	mV
Diode capacitance	$V_R = 0\text{V}$, $f = 1\text{MHz}$	C_D		5	pF
Reverse recovery time	$I_F = I_R = 30\text{mA}$, $I_{rr} = 0.1 \times I_R$, $R_L = 100\Omega$	T_{rr}		50	nS

RATING AND CHARACTERISTIC CURVES (CDST-21C-HF)

Fig.1 - Typical Forward Characteristics

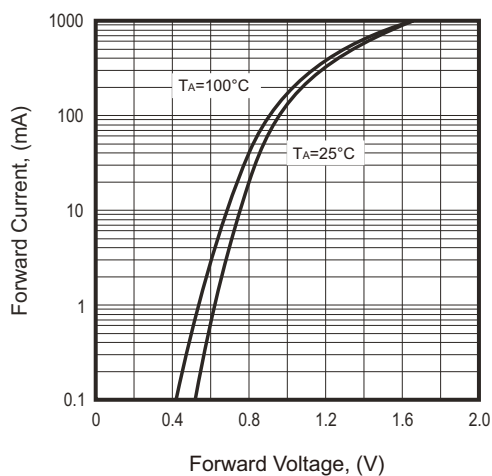


Fig.2 - Typical Reverse Characteristics

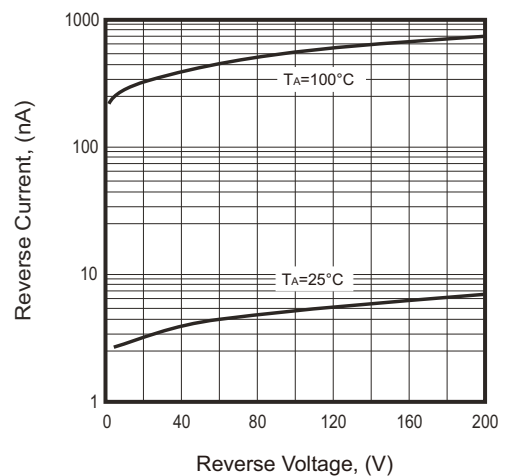


Fig.3 - Capacitance Between

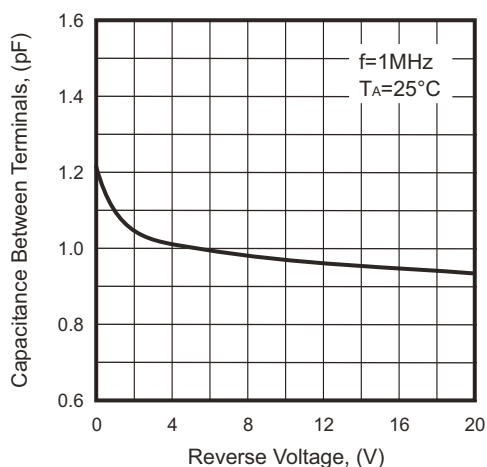
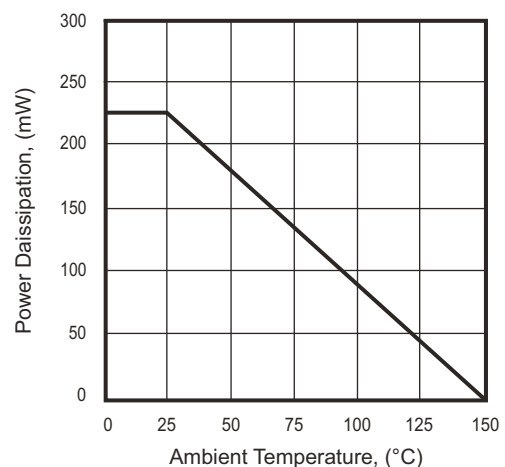
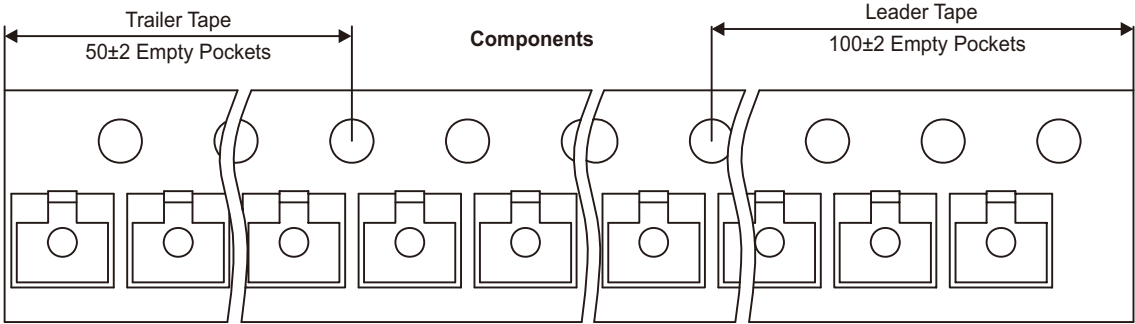
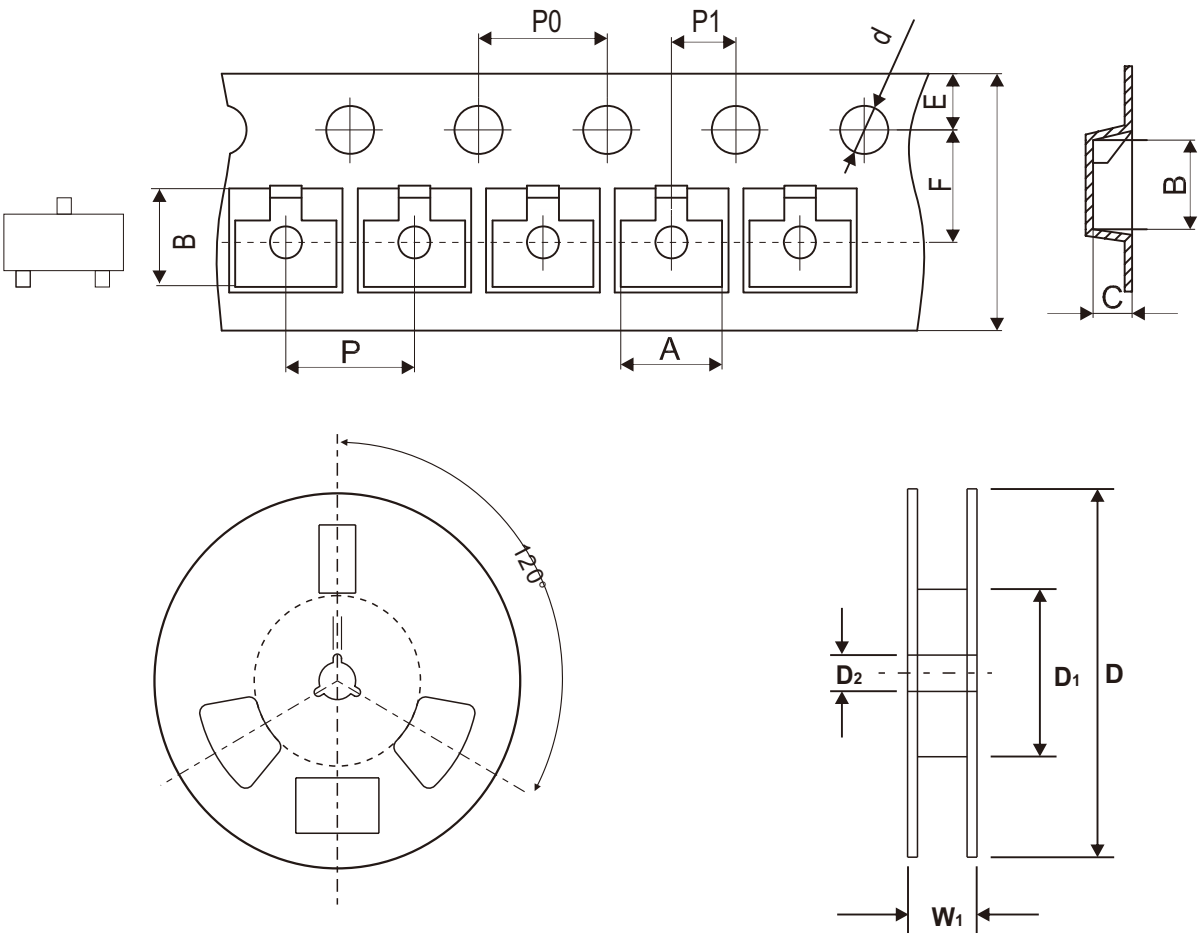


Fig.4 - Power Derating Curve



Company reserves the right to improve product design , functions and reliability without notice.

Reel Taping Specification



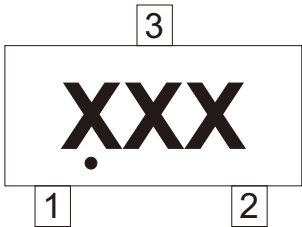
SOT-23	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	3.15 ± 0.10	2.77 ± 0.10	1.22 ± 0.10	1.50 ± 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.124 ± 0.004	0.109 ± 0.004	0.048 ± 0.004	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOT-23	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 + 0.30 / - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 / - 0.004	0.484 ± 0.039

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Marking Code

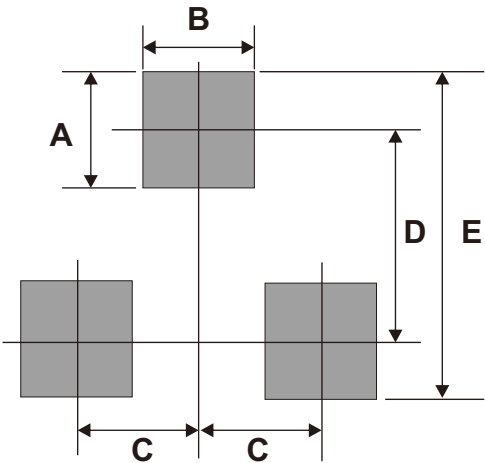
Part Number	Marking Code
CDST-21C-HF	JS3



xxx = Product type marking code

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



Note: 1. The pad layout is for reference purposes only.

Standard Packaging

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