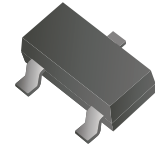


## CDST-16-HF/4148-HF/914-HF

Reverse Voltage: 75 Volts

Forward Current: 200 mA

RoHS Device



### Features

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

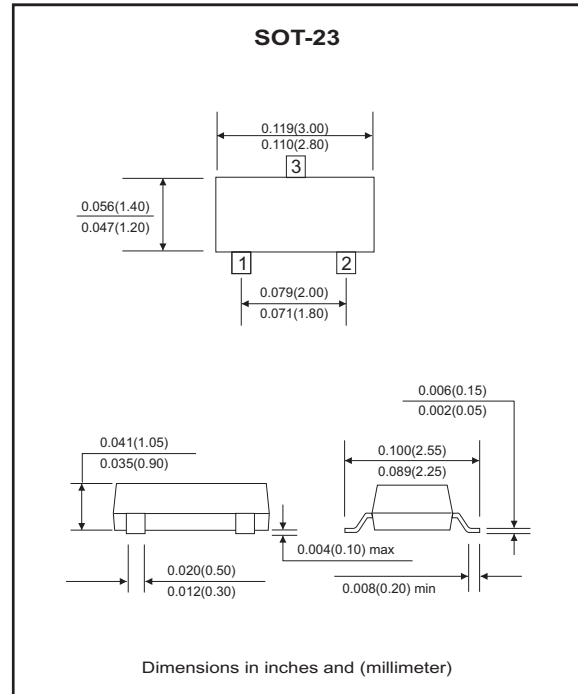
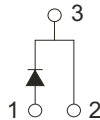
### Mechanical data

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

(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	$I_F$		200	mA
Peak surge forward current	$I_{FSM}$	T=1.0 $\mu$ S	2	A
Power dissipation	$P_D$		225	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, $T_J=150^\circ$ C @ $V_R=75$ V, $T_J=150^\circ$ 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	$T_J$		150	$^\circ$ C
Storage temperature	$T_{STG}$		-55 to +150	$^\circ$ C

## RATING AND CHARACTERISTIC CURVES (CDST-16-HF/4148-HF/914-HF)

Fig.1 Forward Characteristics

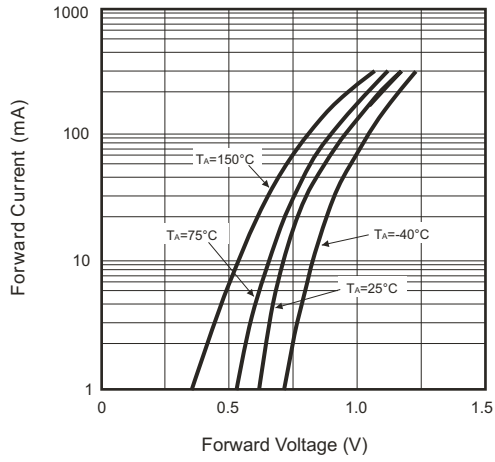


Fig.2 Reverse Characteristics

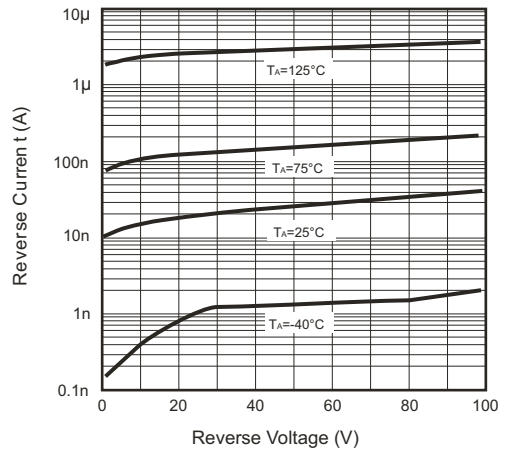


Fig.3 Capacitance Between Terminals Characteristics

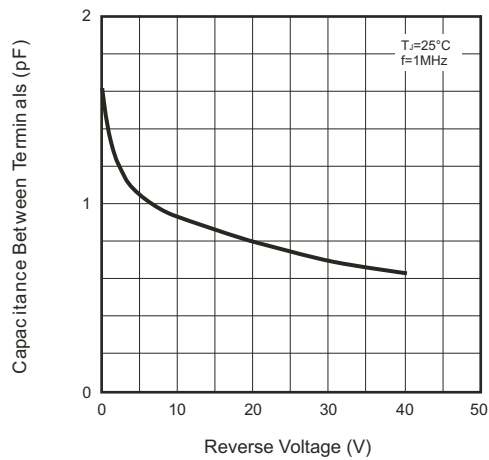
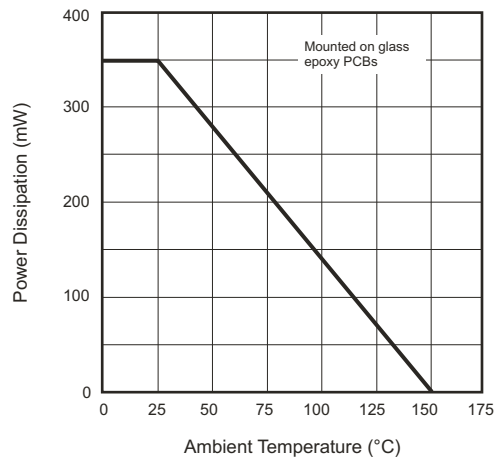
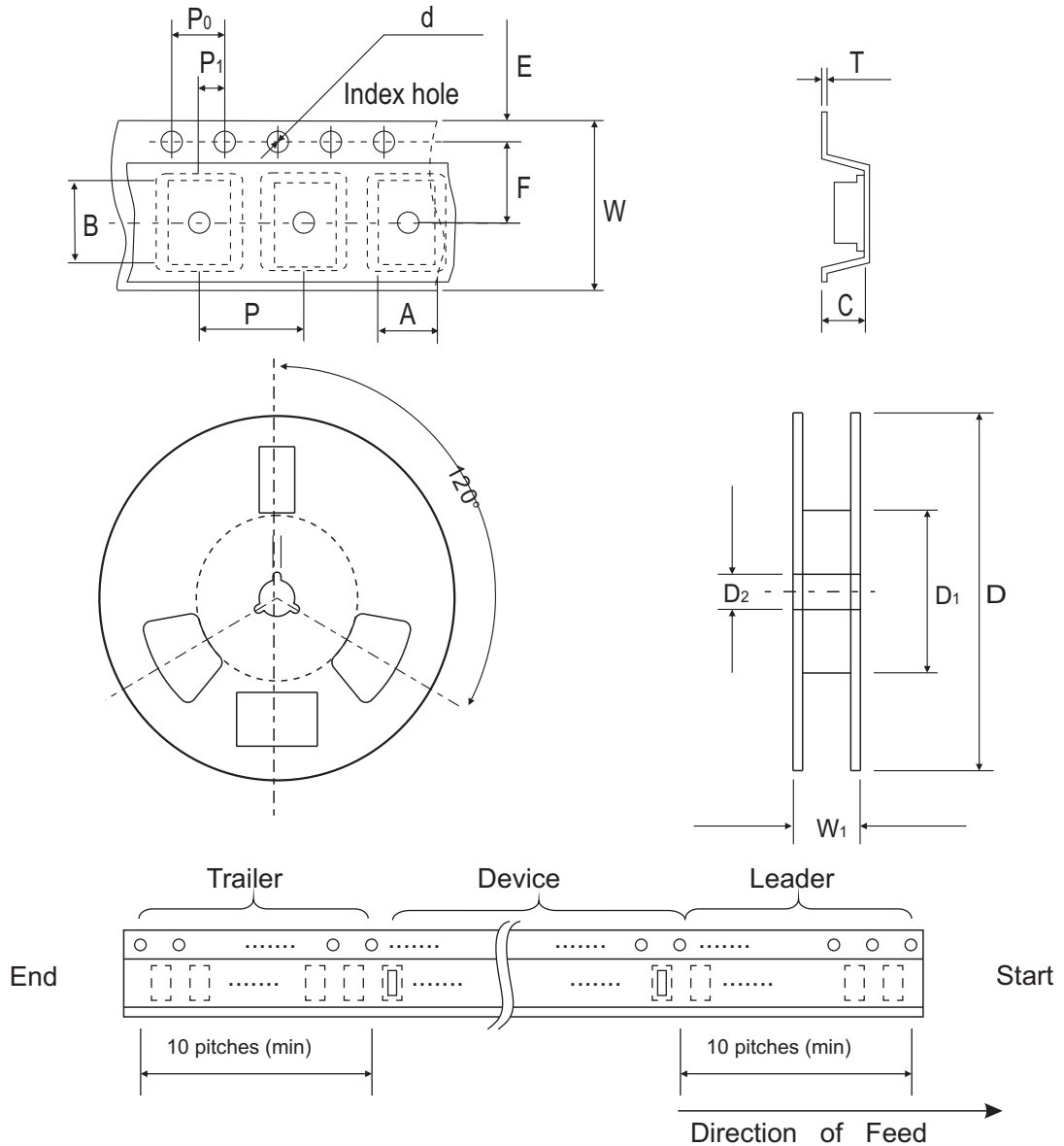


Fig.4 Power Derating Curve



## Reel Taping Specification

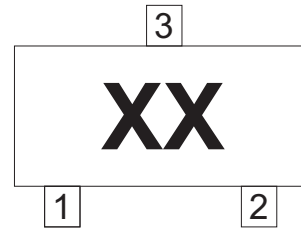


SOT-23	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	3.10 ± 0.10	2.85 ± 0.10	1.40 ± 0.10	1.55 ± 0.10	178 ± 1	50.0 MIN.	13.0 ± 0.20
	(inch)	0.122 ± 0.004	0.112 ± 0.004	0.055 ± 0.004	0.061 ± 0.004	7.008 ± 0.04	1.969 MIN.	0.512 ± 0.008

SOT-23	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	W	W <sub>1</sub>
	(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	14.4 MAX.
	(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	0.567 MAX.

## Marking Code

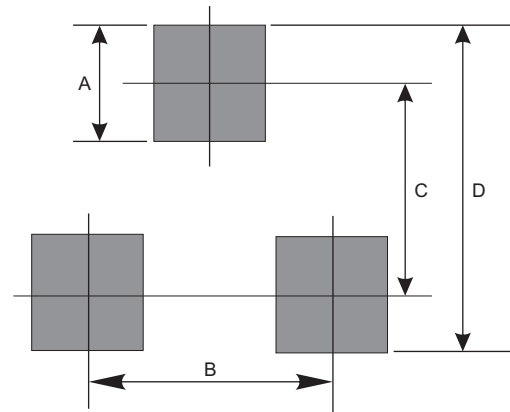
Part Number	Marking Code
CDST-16-HF	A6
CDST-4148-HF	KA2
CDST-914-HF	5D



xx = 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 Package

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
SOT-23	3000	7