

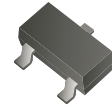
## CDSH3-221-HF

Voltage: 20 Volts

Current: 100 mA

RoHS Device

Halogen Free



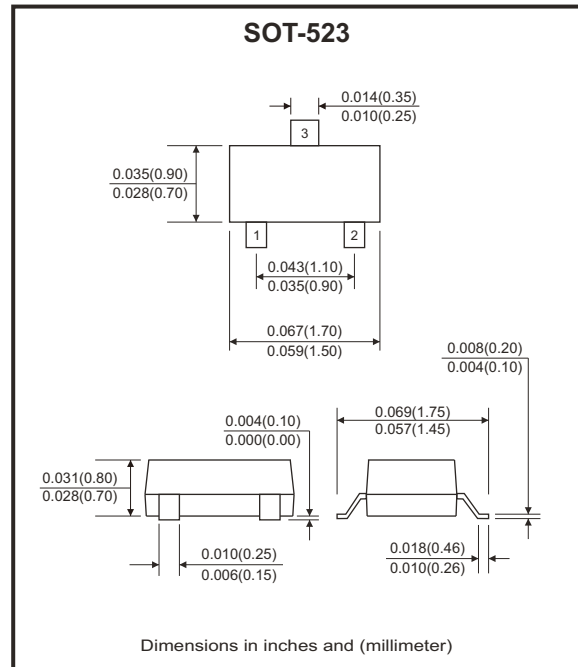
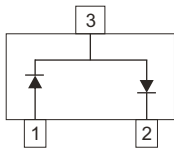
### Features

- Bias circuits.
- Protection circuits.

### Mechanical data

- Case: SOT-523, molded plastic.

### Circuit Diagram



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

Parameter	Symbol	Value	Unit
Non-repetitive peak reverse voltage	$V_{RM}$	20	V
Peak repetitive peak reverse voltage	$V_{RRM}$	20	V
DC blocking voltage	$V_R$	20	V
Forward continuous current	$I_{FM}$	200	mA
Non-repetitive peak forward surge current @ t=8.3ms	$I_{FSM}$	2	A
Average rectified output current	$I_o$	100	mA
Power dissipation	$P_D$	150	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	833	°C/W
Junction temperature	$T_J$	150	°C
Storage temperature range	$T_{STG}$	-55 to +150	°C

### Electrical Characteristics (at Ta=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse breakdown voltage	$I_R=100\mu A$	$V_{(BR)}$	20			V
Forward voltage	$I_F=10mA$	$V_F$			1	V
Reverse current	$V_R=15V$	$I_R$			0.1	$\mu A$

## Rating and Characteristic Curves (CDSH3-221-HF)

Fig.1 - Forward Characteristics

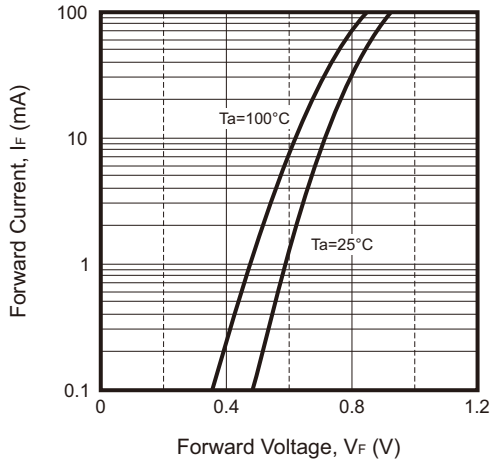


Fig.2 - Reverse Characteristics

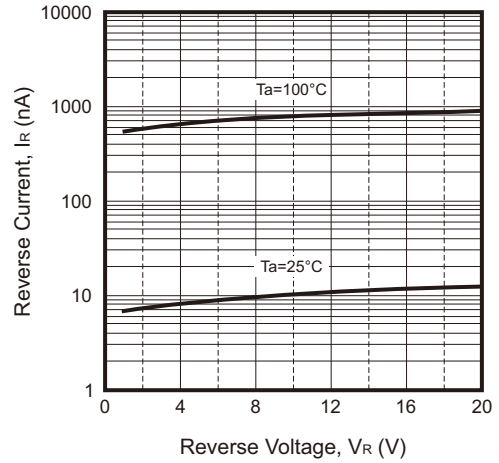


Fig.3 - Capacitance Characteristics

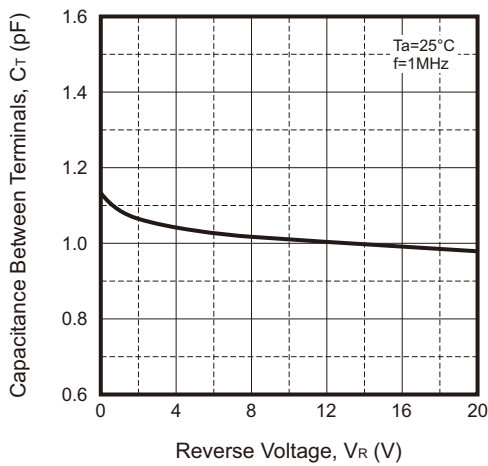
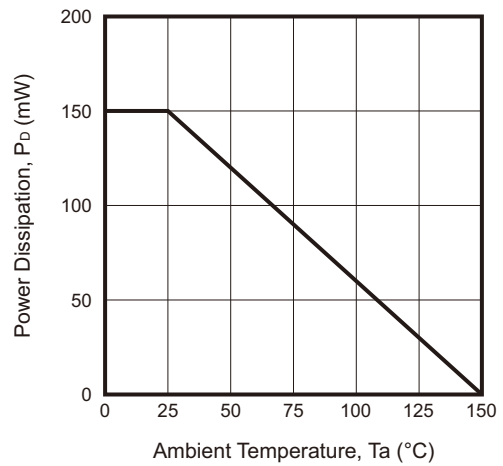
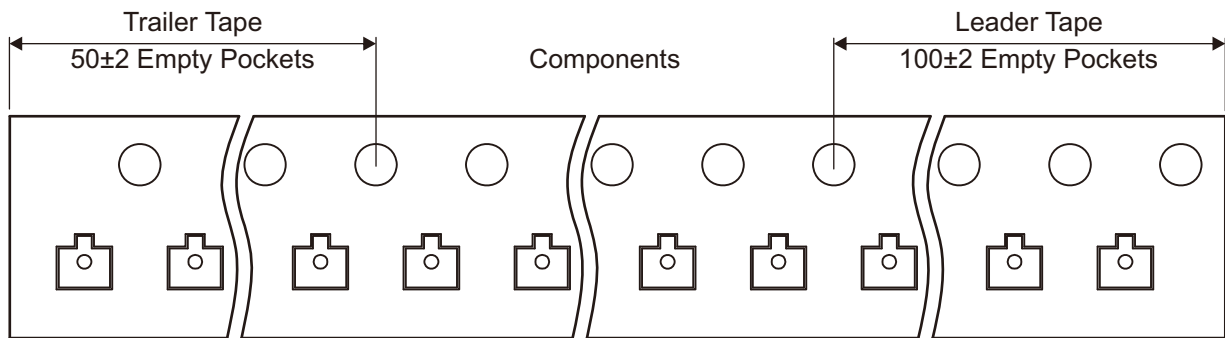
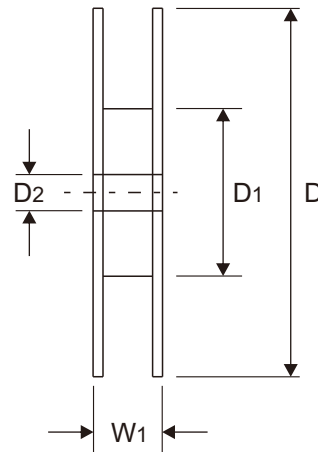
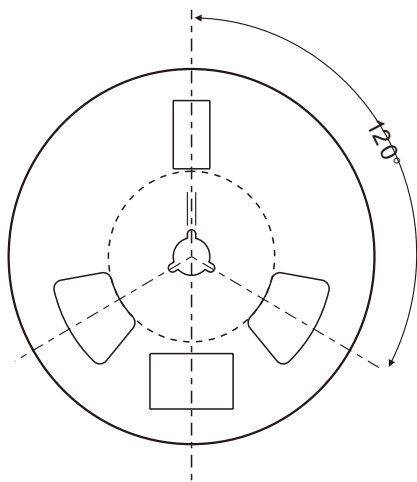
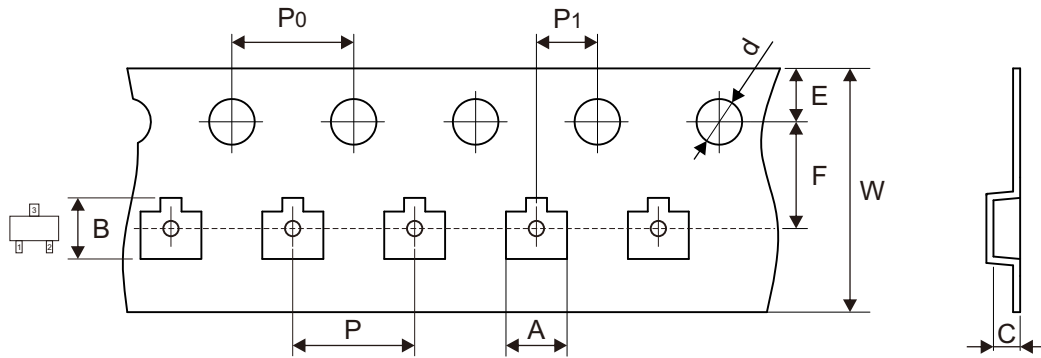


Fig.4 - Power Derating Curve



## Reel Taping Specification



SOT-523	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.85 ± 0.05	1.85 ± 0.05	0.875 ± 0.05	1.50 ± 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.073 ± 0.002	0.073 ± 0.002	0.034 ± 0.002	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

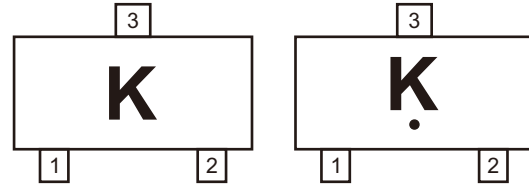
SOT-523	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 + 0.30 - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 - 0.004	0.484 ± 0.039

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

REV:B

## Marking Code

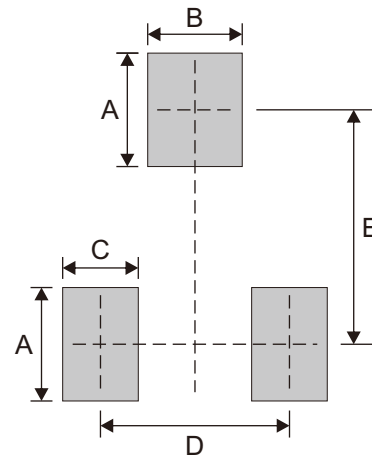
Part Number	Marking Code
CDSH3-221-HF	K



Solid dot = Control code

## Suggested P.C.B. PAD Layout

SIZE	SOT-523	
	(mm)	(inch)
A	0.60	0.024
B	0.50	0.020
C	0.40	0.016
D	1.00	0.039
E	1.24	0.049



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

## Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOT-523	3,000	7