

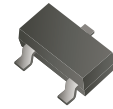
## CDSH3-4448/A/C/S-HF

Voltage: 80 Volts

Current: 250 mA

RoHS Device

Halogen Free



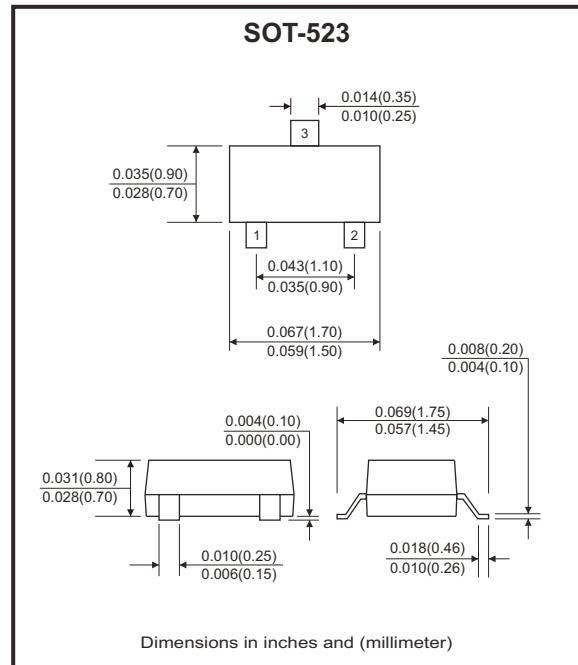
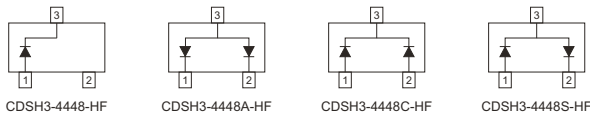
### Features

- Fast switching speed.
- For general purpose switching applications.
- High conductance.

### Mechanical data

- Case: SOT-523, molded plastic.

### Circuit Diagram



### Maximum Ratings (Single diode, at TA=25°C unless otherwise noted)

Parameter	Symbol	Value	Unit
Non-repetitive peak reverse voltage	$V_{RM}$	100	V
Peak repetitive peak reverse voltage	$V_{RRM}$	80	V
Working peak reverse voltage	$V_{RWM}$		
DC blocking voltage	$V_R$		
RMS reverse voltage	$V_{R(RMS)}$	57	V
Forward continuous current	$I_{FM}$	500	mA
Average rectified output current	$I_o$	250	mA
Non-repetitive peak forward surge current @ t=8.3ms	$I_{FSM}$	2	A
Power dissipation	$P_D$	150	mW
Thermal resistance from junction to ambient	$R_{\theta JA}$	833	°C/W
Operation junction and storage temperature range	$T_J, T_{STG}$	-55 to +150	°C

## Electrical Characteristics (Single diode, at TA=25°C unless otherwise noted)

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse breakdown voltage	$V_R$	$I_R=2.5\mu A$	80			V
Forward voltage	$V_{F1}$	$I_F=5mA$	0.62		0.72	V
	$V_{F2}$	$I_F=10mA$			0.855	
	$V_{F3}$	$I_F=100mA$			1.0	
	$V_{F4}$	$I_F=150mA$			1.25	
Reverse current	$I_{R1}$	$V_R=70V$			0.1	$\mu A$
	$I_{R2}$	$V_R=20V$			25	nA
Capacitance between terminals	$C_T$	$V_R=6V, f=1MHz$			3.5	pF
Reverse recovery time	$T_{rr}$	$I_F=I_R=10mA, I_{RR}=0.1I_R, R_L=100\Omega$			4	ns

## Rating and Characteristic Curves (CDSH3-4448/A/C/S-HF)

Fig.1 - Forward Characteristics

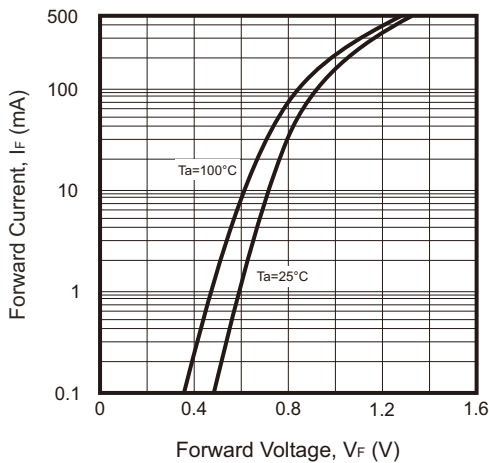


Fig.2 - Reverse Characteristics

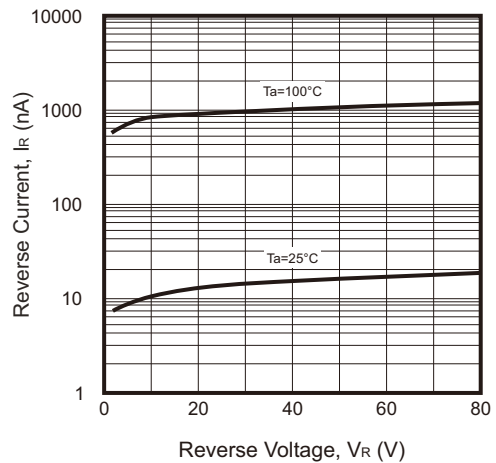


Fig.3 - Capacitance Characteristics

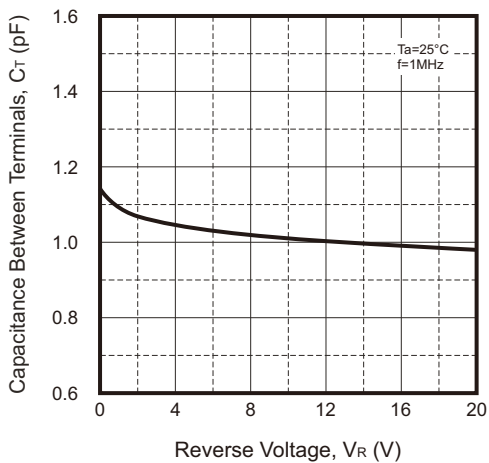
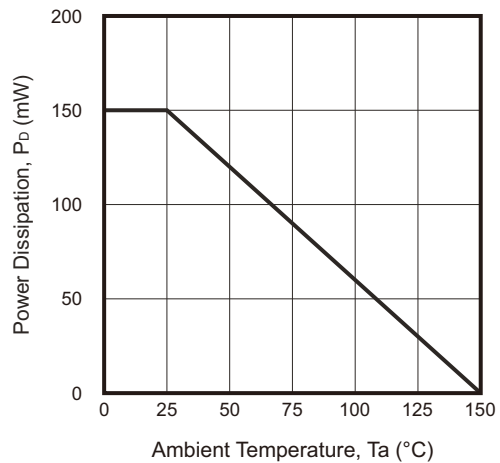
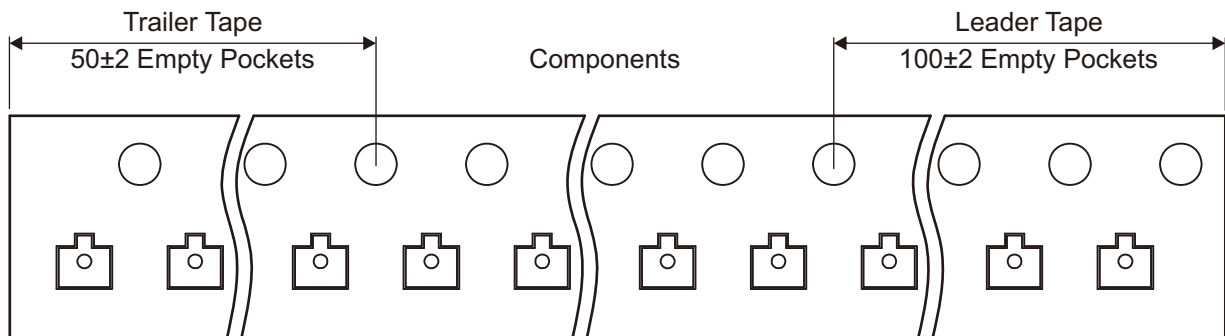
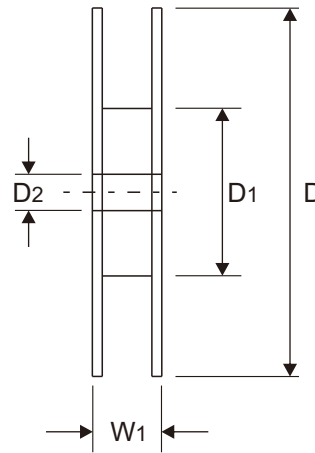
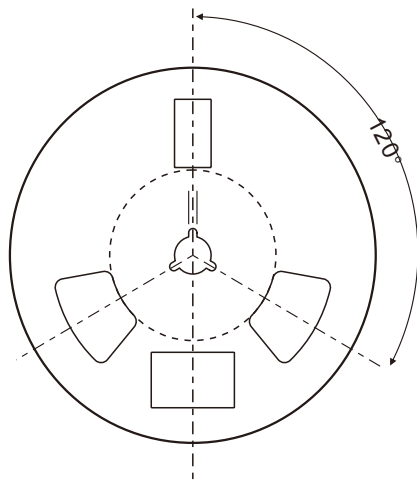
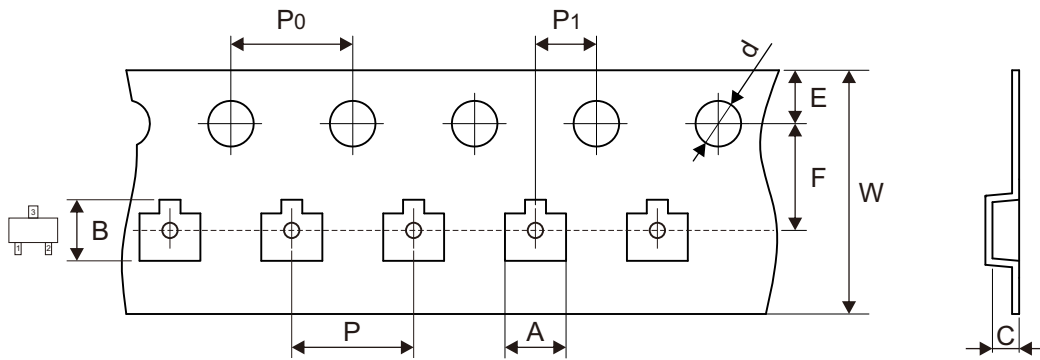


Fig.4 - Power Derating Curve



## 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

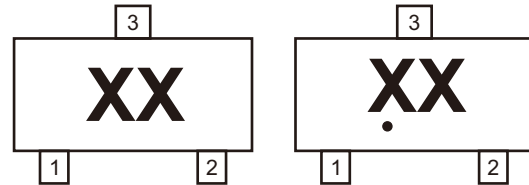
SOT-523	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 + 0.30 - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 - 0.004	0.484 ± 0.039

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

REV:A

## Marking Code

Part Number	Marking Code
CDSH3-4448-HF	A3
CDSH3-4448A-HF	A6
CDSH3-4448C-HF	A7
CDSH3-4448S-HF	AB

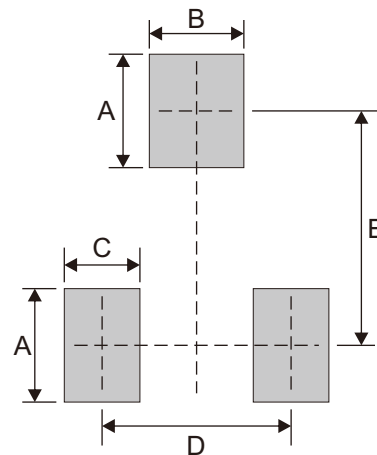


Solid dot = Control code

xx = Product type marking 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