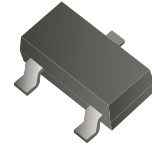


## CDSH3-222N-HF/222P-HF

RoHS Device  
Halogen Free



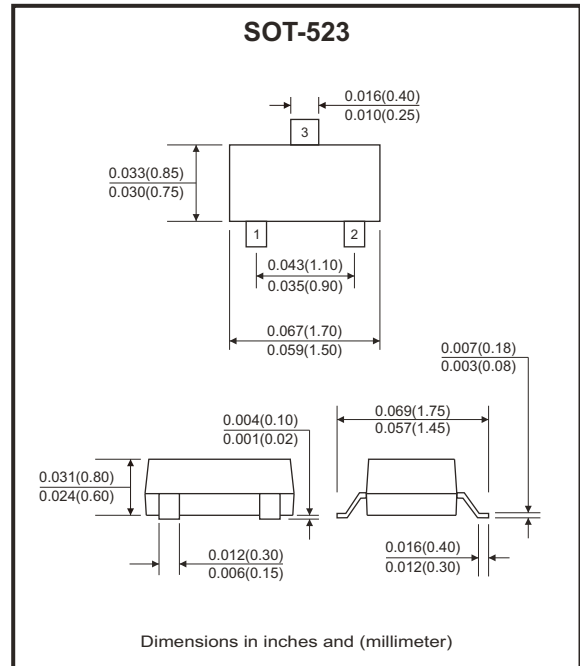
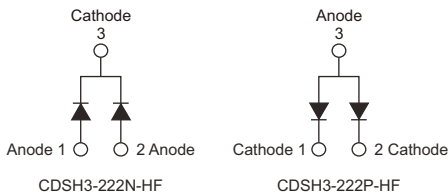
### Features

- Ultra-small surface mount package.
- Fast switching speed.
- For general purpose switching applications.
- Low conductance.

### Mechanical data

- Case: SOT-523, molded plastic.

### Circuit Diagram



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

Parameter	Symbol	Value	Units
DC reverse voltage	$V_R$	80	V
Peak reverse voltage	$V_{RM}$	80	V
Forward continuous voltage	$I_F$	100	mA
Peak forward current (max.)	$I_{FM}$	300	mA
Non-repetitive peak forward surge current @ t=1μs	$I_{FSM}$	2.0	A
Power dissipation	$P_D$	150	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	833	°C/W
Junction and storage temperature range	$T_J, T_{STG}$	-55 to +150	μA

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

Parameter	Conditions	Symbol	Min	Max	Units
Reverse breakdown voltage	$I_R = 100\mu A$	$V_{(BR)R}$	80		V
Leakage current	$V_R = 70V$	$I_R$		0.1	μA
Forward voltage	$I_F = 100mA$	$V_F$		1.2	V
Diode capacitance	$V_R = 6V, f = 1MHz$	$C_D$		3.5	pF
Reverse recovery time	$I_F = I_R = 5mA, I_{rr} = 0.1 \times I_R, R_L = 100\Omega, V_R = 6V$	$t_{rr}$		4.0	ns

## Rating and Characteristic Curves (CDSH3-222N-HF/222P-HF)

Fig.1 - Forward Voltage

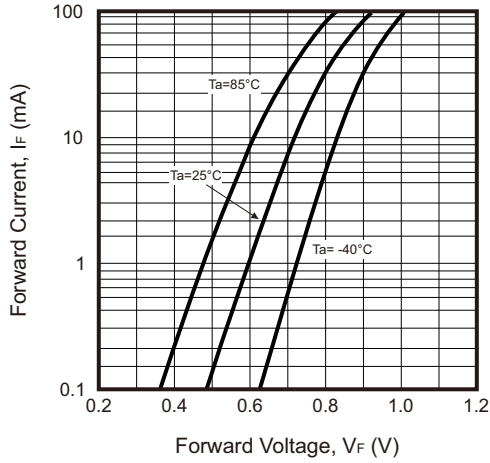


Fig.2 - Reverse Current

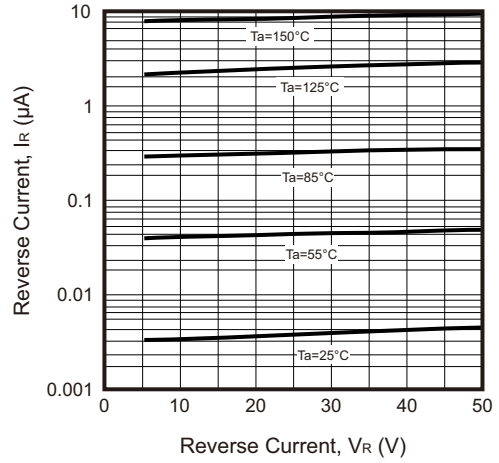
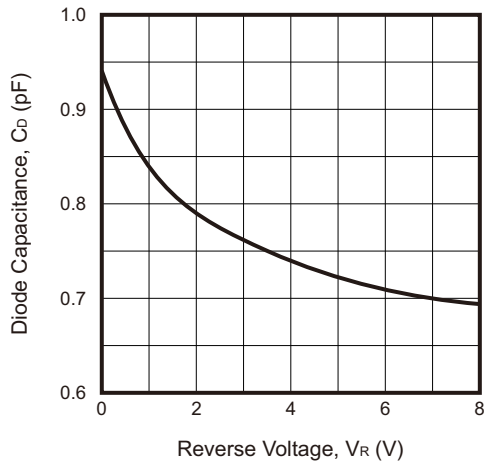
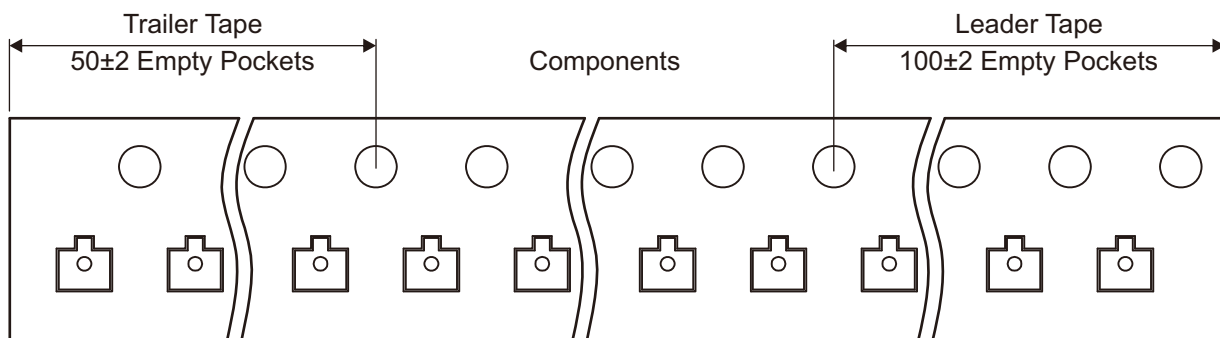
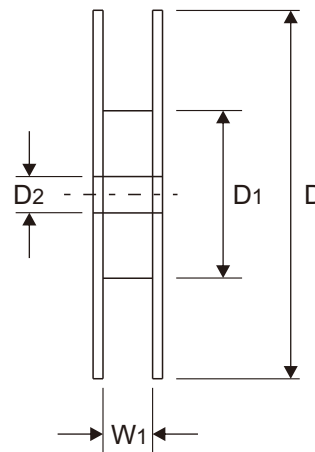
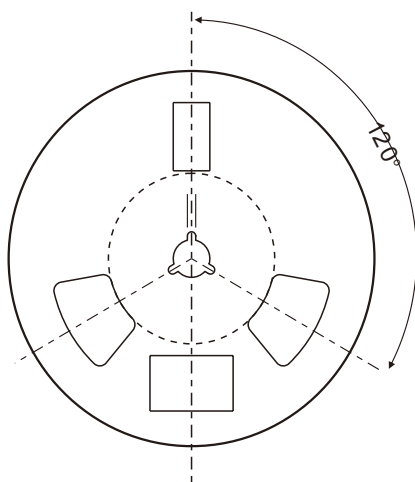
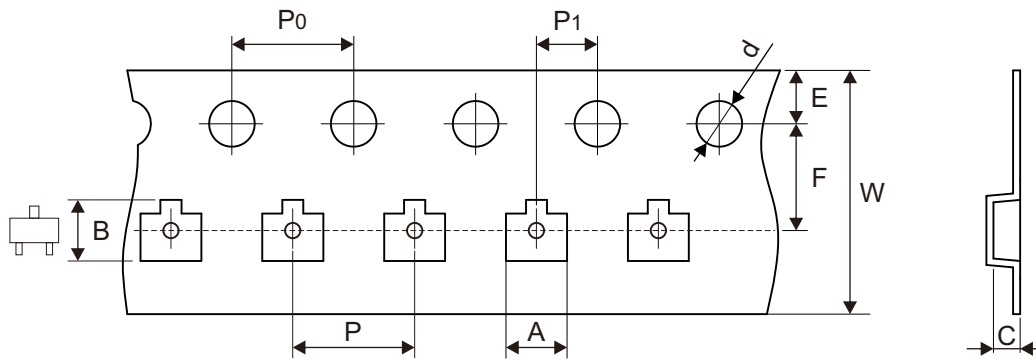


Fig.3 - Diode Capacitance



## 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 ± 1.00	54.00 ± 0.50	13.00 ± 0.50
	(inch)	0.073 ± 0.002	0.073 ± 0.002	0.034 ± 0.002	0.059 ± 0.004	7.008 ± 0.039	2.126 ± 0.020	0.512 ± 0.020

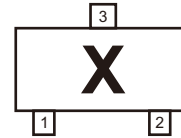
SOT-523	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	8.00 + 0.20 - 0.10	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 + 0.008 - 0.004	0.374 ± 0.039

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

REV:A

## Marking Code

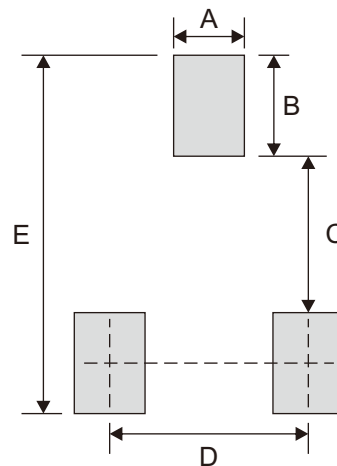
Part Number	Marking Code
CDSH3-222N-HF	N
CDSH3-222P-HF	P



X = Product type marking code

## Suggested P.C.B. PAD Layout

SIZE	SOT-523	
	(mm)	(inch)
A	0.356	0.014
B	0.508	0.020
C	0.787	0.031
D	1.00	0.039
E	1.803	0.071



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