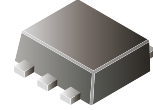


## CDSH6-01100-HF

RoHS Device

Halogen Free

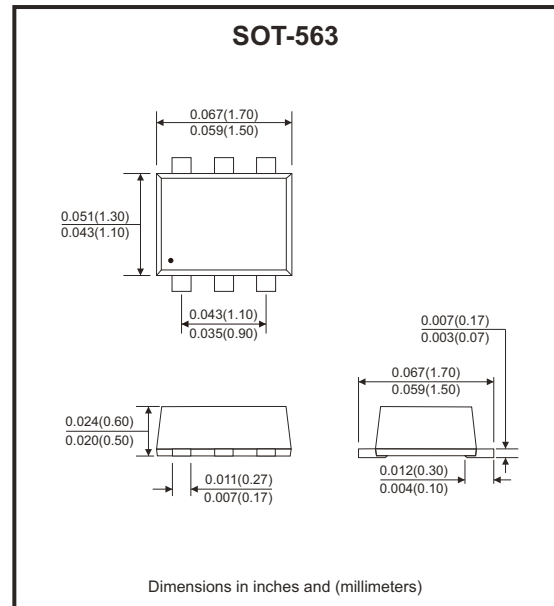


### Features

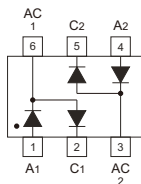
- Fast switching speed.
- Low forward voltage.
- Fast reverse recovery.
- Low capacitance.
- Ultra-small surface mount package.

### Mechanical data

- Case: SOT-563, molded plastic.
- Terminals: Solderable per MIL-STD-750, method 2026.
- Mounting position: Any.



### Circuit Diagram



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

Parameter	Symbol	Value	Unit
Non-repetitive peak reverse voltage	$V_{RM}$	105	V
Repetitive peak reverse voltage	$V_{RRM}$	100	V
Repetitive peak forward current	$I_{FRM}$	300	mA
Continuous forward current	$I_o$	100	mA
Non-repetitive peak forward current @ t = 1μs	$I_{FSM}$	2	A
Power dissipation	$P_D$	200	mW
Operating temperature range	$T_J$	-40 to +150	°C
Storage temperature range	$T_{STG}$	-55 to +150	°C

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

Parameter	Conditions	Symbol	Min	Max	Unit
Reverse breakdown voltage	$I_R = 0.1\text{mA}$	$V_{(BR)}$	80		V
Forward voltage	$I_F = 100\text{mA}$ $I_F = 150\text{mA}$	$V_F$		1200 1250	mV
Reverse current	$V_R = 30\text{V}$ $V_R = 80\text{V}$ $V_R = 20\text{V}$ $V_R = 75\text{V}$	$I_R$		0.3 0.5 0.3 0.5	$\mu\text{A}$
Total capacitance	$V_R = 0\text{V}$ , $f = 1\text{MHz}$	$C_T$		2.0	pF
Reverse recovery time	$I_F = I_R = 10\text{mA}$ , $I_{rr} = 1\text{mA}$ , $R_L = 100\Omega$	$t_{rr}$		4	ns

## Rating and Characteristic Curves (CDSH6-01100-HF)

Fig.1 - Power Derating Curve

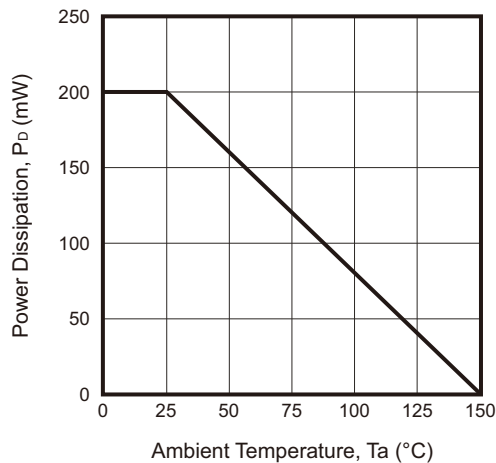


Fig.2 - Forward Characteristic

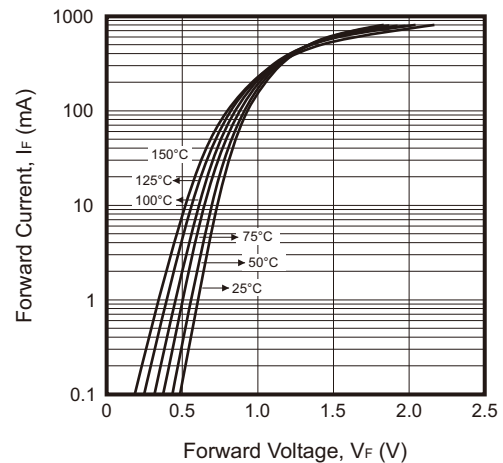


Fig.3 - Capacitance of Diodes

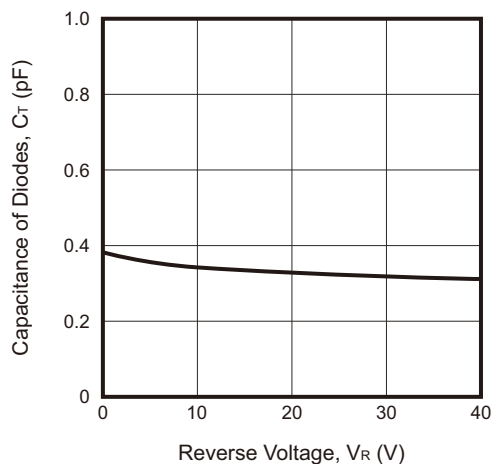
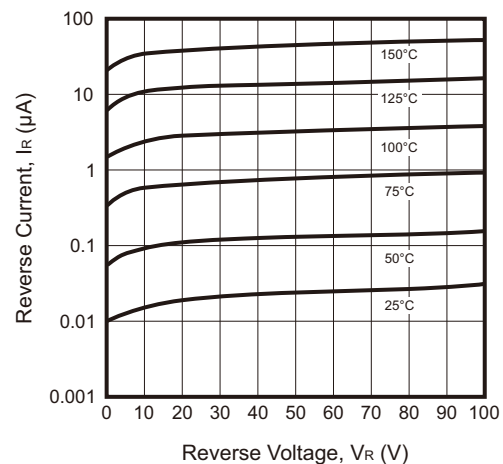
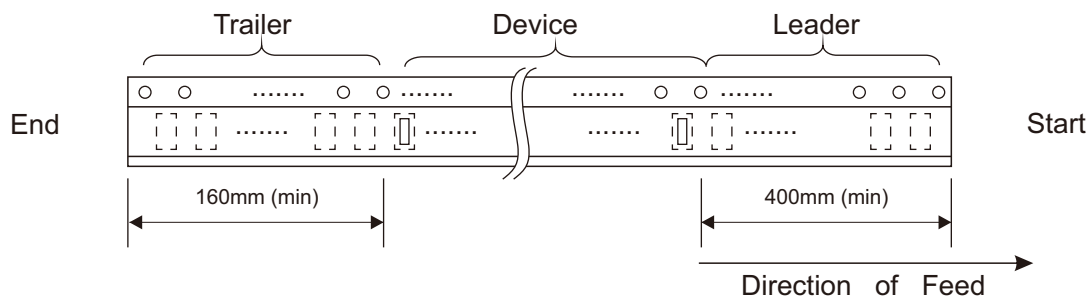
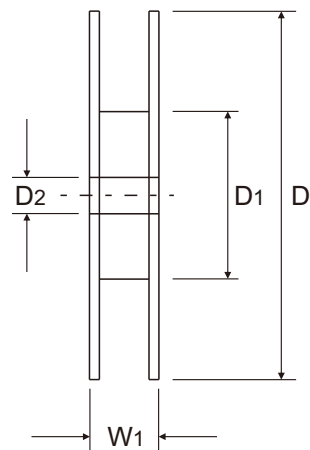
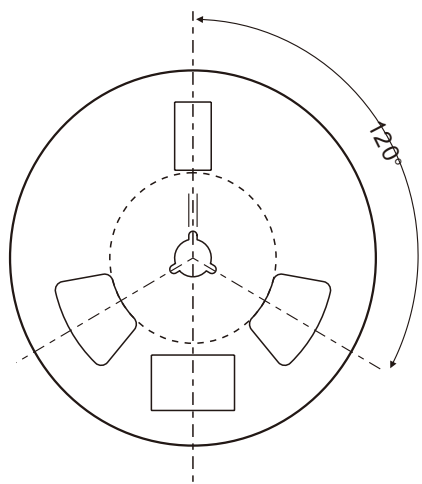
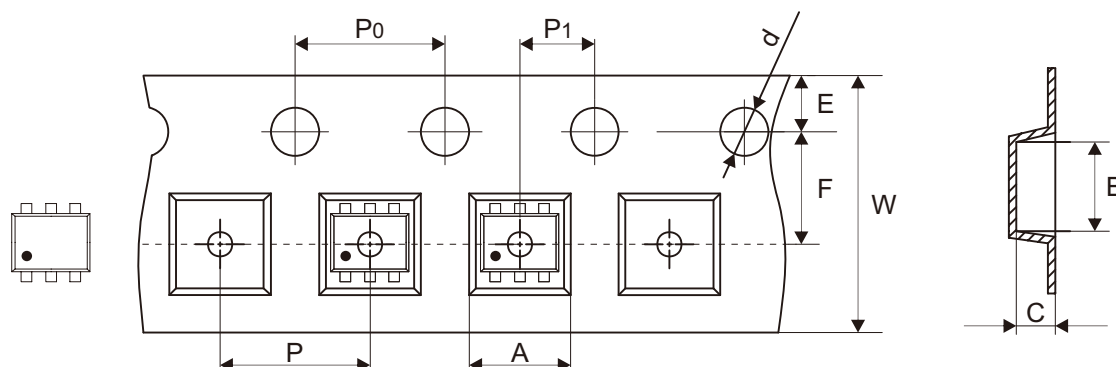


Fig.4 - Reverse Characteristic



## Reel Taping Specification



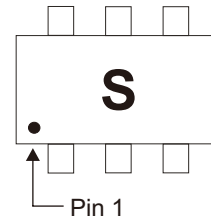
SOT-563	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.70 ± 0.10	1.70 ± 0.10	0.72 ± 0.10	1.55 ± 0.05	178.00 ± 1.00	60.00 + 0.50 - 0.00	13.00 ± 0.20
	(inch)	0.067 ± 0.004	0.067 ± 0.004	0.028 ± 0.004	0.061 ± 0.002	7.008 ± 0.039	2.362 + 0.020 - 0.000	0.512 ± 0.008

SOT-563	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 ± 0.15	12.40 + 0.00 - 0.40
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.315 ± 0.006	0.488 + 0.000 - 0.016

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

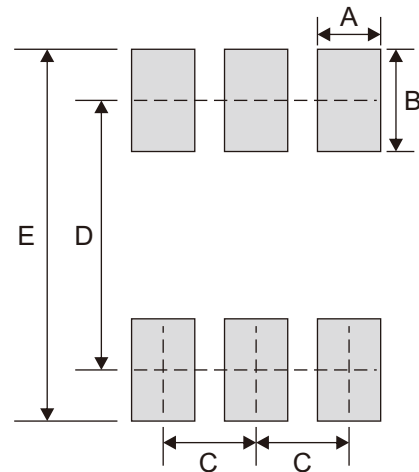
## Marking Code

Part Number	Marking Code
CDSH6-01100-HF	S



## Suggested P.C.B. PAD Layout

SIZE	SOT-563	
	(mm)	(inch)
A	0.34	0.013
B	0.55	0.022
C	0.50	0.020
D	1.45	0.057
E	2.00	0.079



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

## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
SOT-563	3,000	7