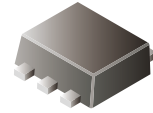


CDSH6-01100-HF

RoHS Device

Halogen Free

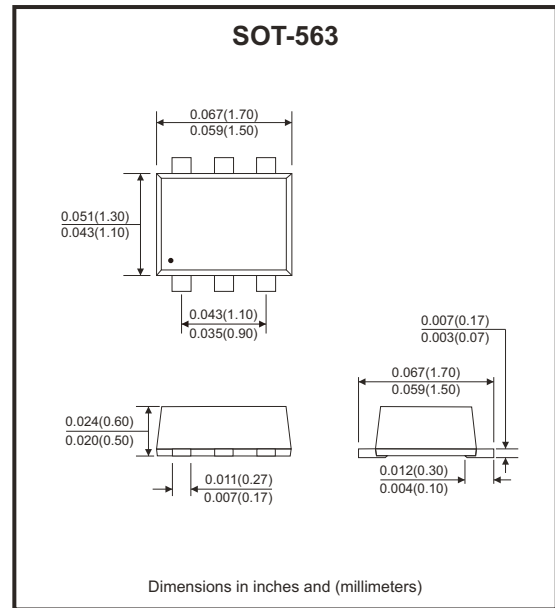


Features

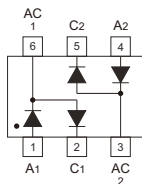
- Fast switching speed.
- Low forward voltage.
- Fast reverse recovery.
- Low capacitance.
- Ultra-small surface mount package.

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	μA
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

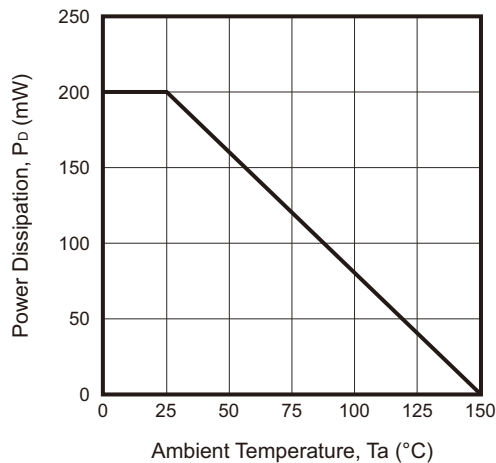


Fig.2 - Forward Characteristic

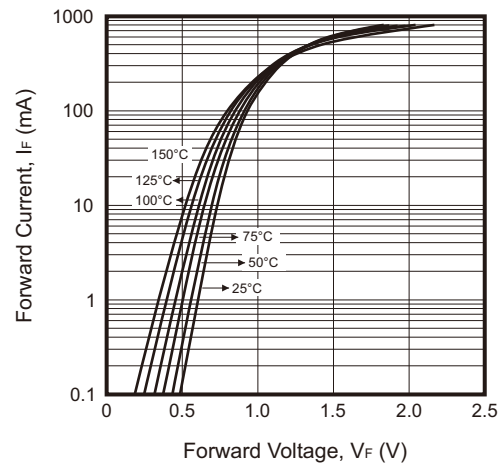


Fig.3 - Capacitance of Diodes

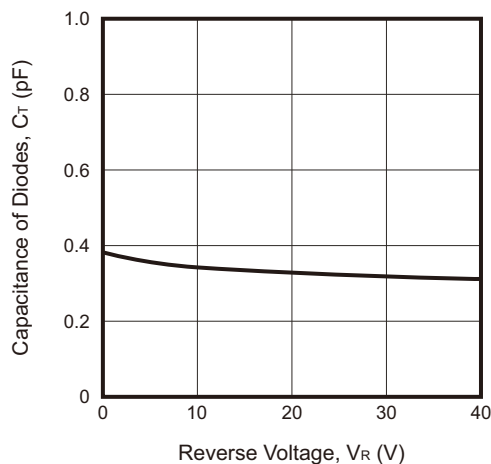
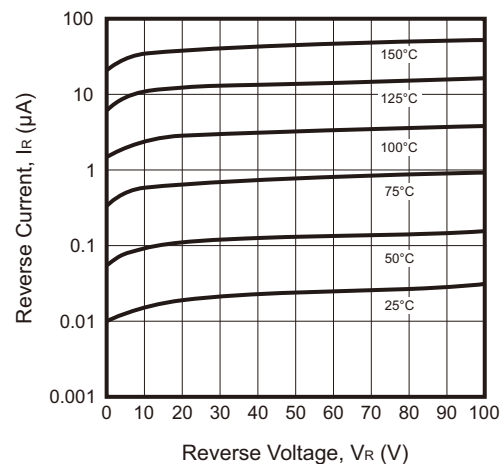
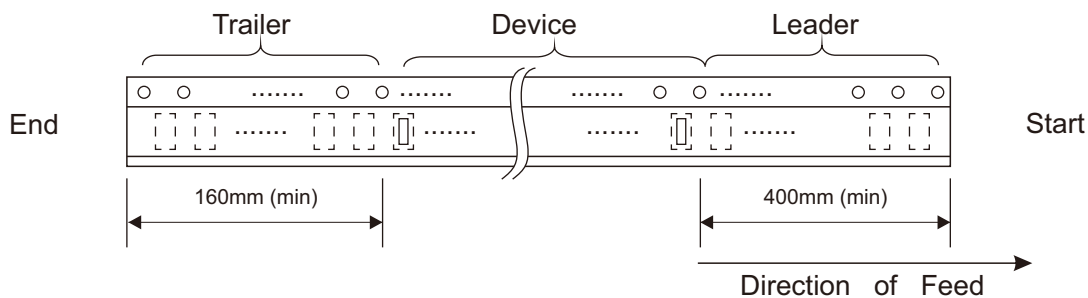
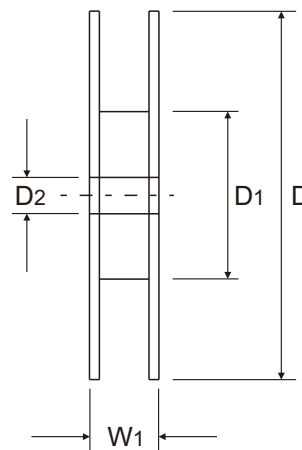
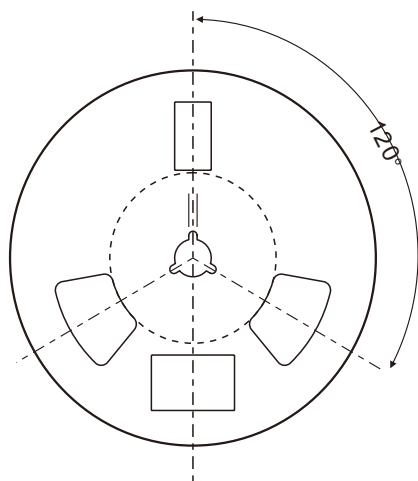
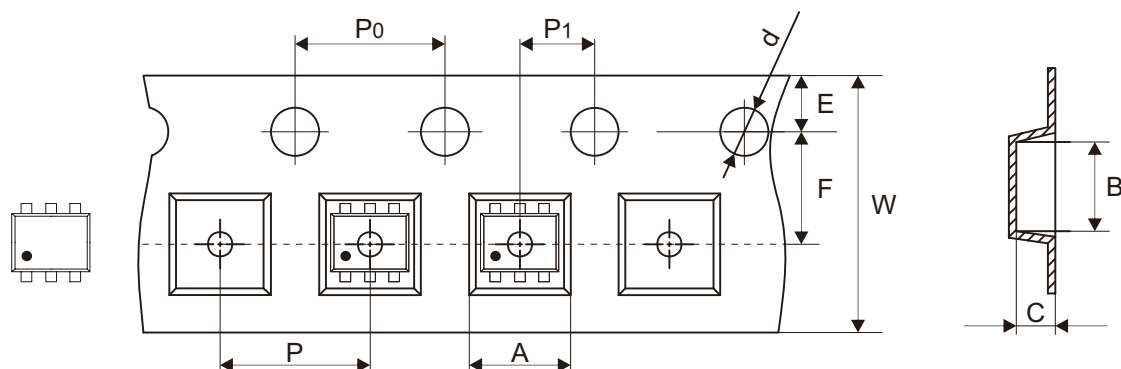


Fig.4 - Reverse Characteristic



Reel Taping Specification

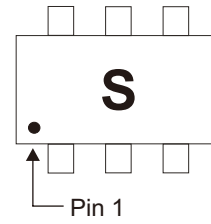


SOT-563	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.70 ± 0.10	1.70 ± 0.10	0.72 ± 0.10	1.55 ± 0.05	178.00 ± 1.00	60.00 + 0.50 - 0.00	13.00 ± 0.20
	(inch)	0.067 ± 0.004	0.067 ± 0.004	0.028 ± 0.004	0.061 ± 0.002	7.008 ± 0.039	2.362 + 0.020 - 0.000	0.512 ± 0.008

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

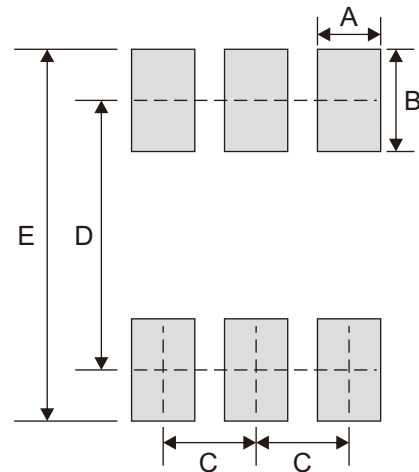
Marking Code

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	4,000	7