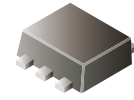


CDSH6-4448-G

RoHS Device



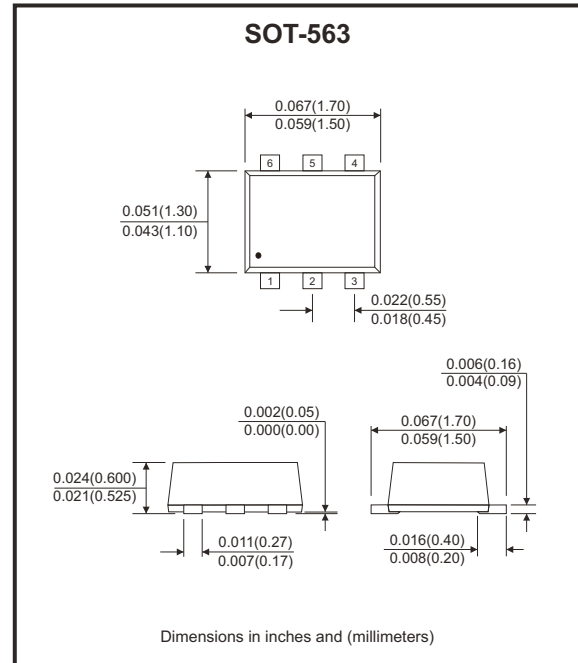
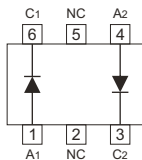
Features

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

Mechanical data

- Case: SOT-563, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208

Circuit Diagram



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

Parameter	Symbol	Limit	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 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 (Single Diode, at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Max	Unit
Reverse breakdown voltage	$I_R=2.5\mu A$	$V_{(BR)}$	80		V
Reverse voltage leakage current	$V_R=70V$	I_R		0.1	μA
	$V_R=20V$			25	nA
Forward voltage	$I_F=5mA$	V_F	0.62	0.72	V
	$I_F=10mA$			0.855	
	$I_F=100mA$			1	
	$I_F=150mA$			1.25	
Capacitance between terminals	$V_R=6V, f=1MHz$	C_T		3.5	pF
Reverse recovery time	$I_F=I_R=10mA, I_{rr}=0.1 \times I_R, R_L=100\Omega$	t_{rr}		4	ns

Rating and Characteristic Curves (CDSH6-4448-G)

Fig.1 - Forward Characteristics

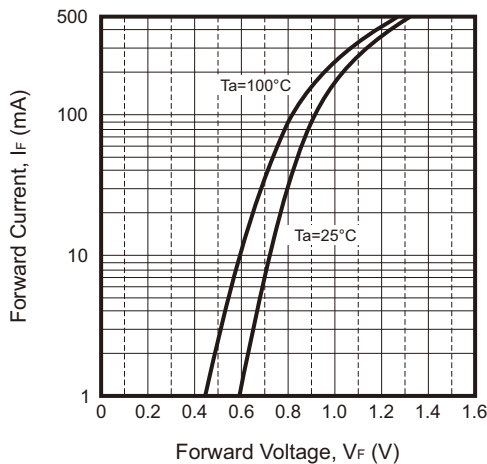


Fig.2 - Reverse Characteristics

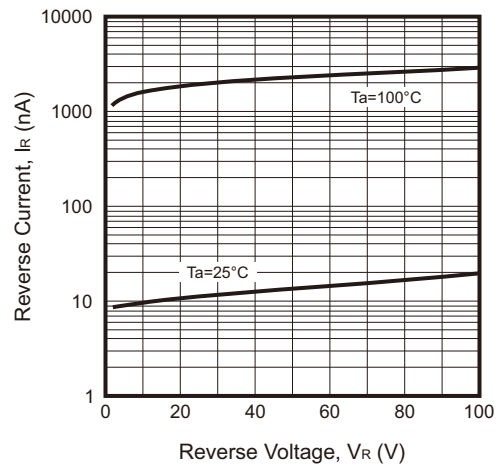


Fig.3 - Capacitance Characteristics

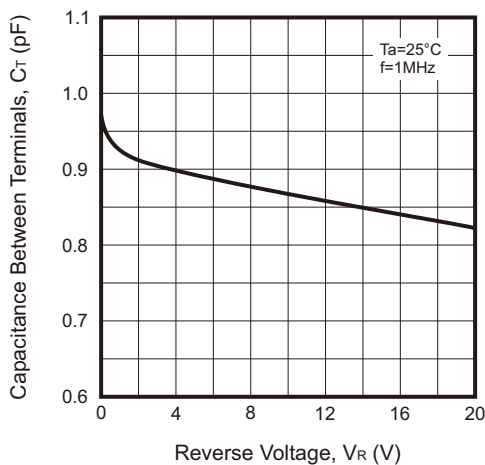
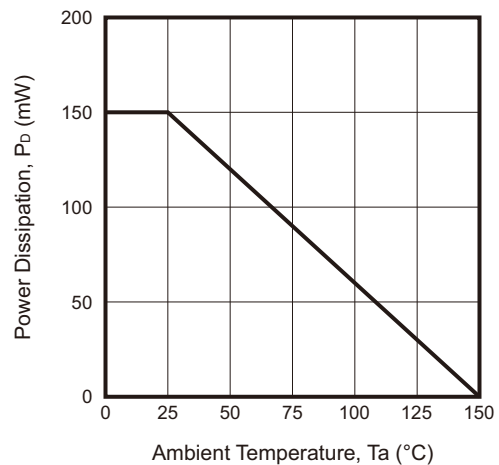
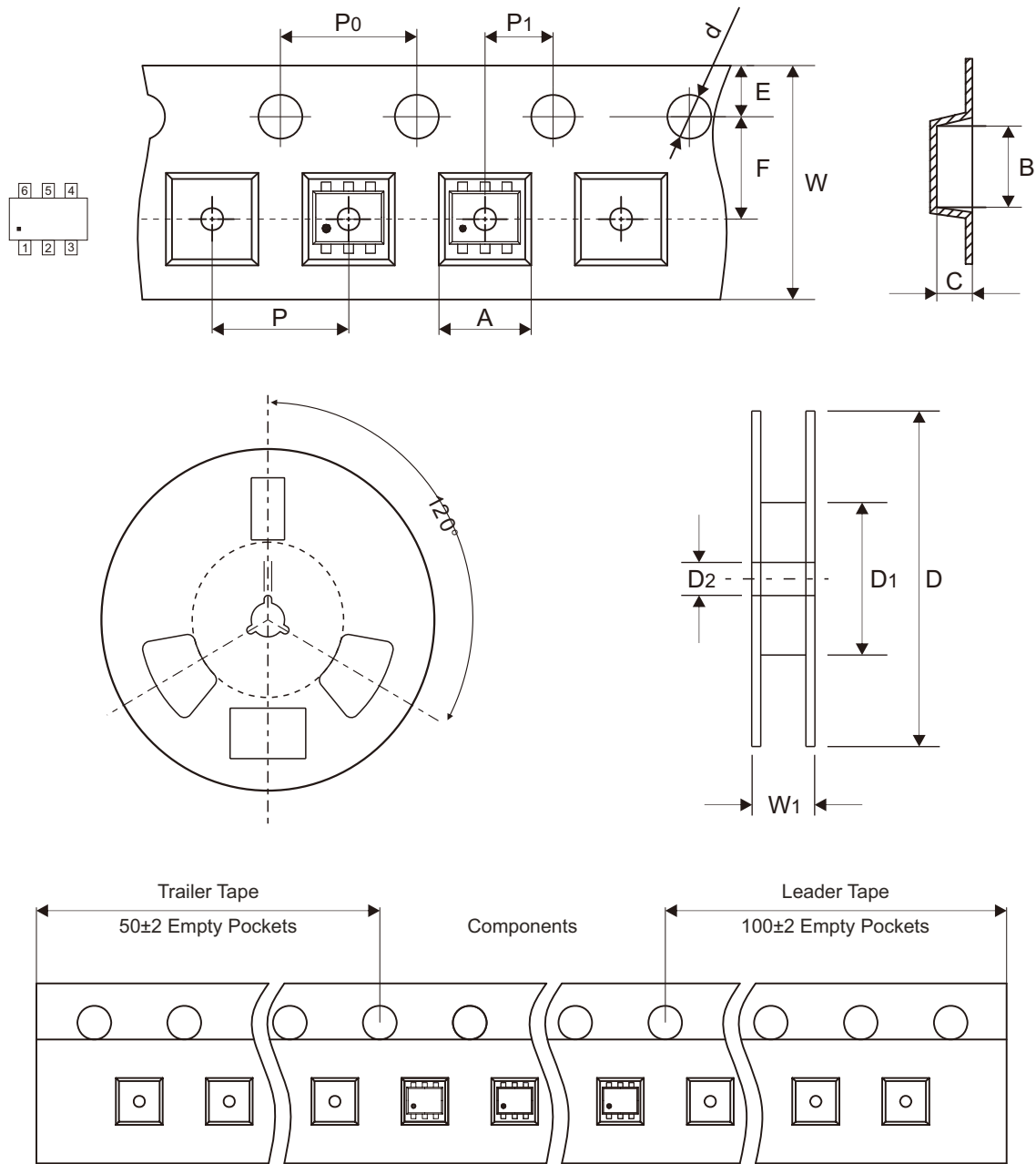


Fig.4 - Power Derating Curve



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

Reel Taping Specification



SOT-563	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.78 ± 0.10	1.78 ± 0.10	0.69 ± 0.10	1.50 ± 0.10	178.00 ± 2.00	54.4 ± 1.00	13.00 ± 1.00
	(inch)	0.070 ± 0.004	0.070 ± 0.004	0.027 ± 0.004	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOT-563	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 ± 0.10	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 ± 0.004	0.484 ± 0.039

Marking Code

Part Number	Marking Code
CDSH6-4448-G	KAL

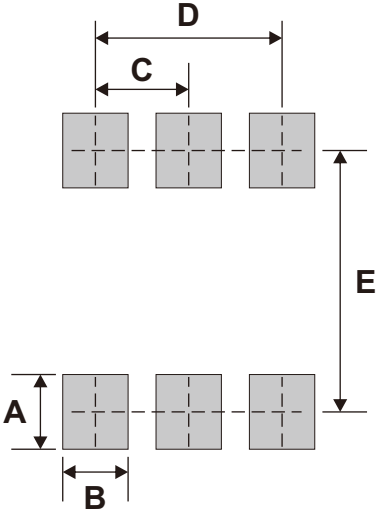


Solid dot “●” = Pin 1 indicate.

Suggested PAD Layout

SIZE	SOT-563	
	(mm)	(inch)
A	0.40	0.016
B	0.35	0.014
C	0.50	0.020
D	1.00	0.039
E	1.40	0.055

Note: 1.General tolerance: $\pm 0.05\text{mm}$.
2.The pad layout is for reference purposes only.



Standard Packaging

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