

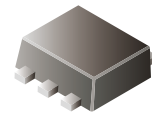


**THE DATASHEET OF  
CDSH6-16-HF**



## CDSH6-16-HF

RoHS Device  
Halogen Free



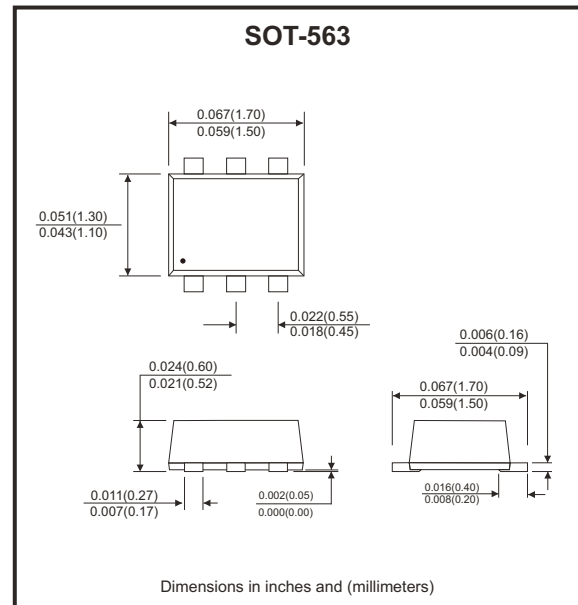
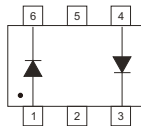
### Features

- 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 (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	$V_{RRM}$	75	V
Working peak reverse voltage	$V_{RWM}$		
DC blocking voltage	$V_R$		
RMS reverse voltage	$V_{R(RMS)}$	53	V
Forward continuous current	$I_{FM}$	300	mA
Average rectified output current	$I_o$	200	mA
Non-repetitive peak forward surge current @t=8.3ms	$I_{FSM}$	2.0	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 (at TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Max	Unit
Reverse breakdown voltage	$I_R=100\mu A$	$V_{BR}$	75		V
Reverse current	$V_R=75V$	$I_R$		1	$\mu A$
	$V_R=20V$			25	nA
Forward voltage	$I_F=1mA$	$V_F$		0.715	V
	$I_F=10mA$			0.855	
	$I_F=50mA$			1	
	$I_F=150mA$			1.25	
Capacitance between terminals	$V_R=0V, f=1MHz$	$C_T$		2	pF
Reverse recovery time	$I_F=I_R=10mA, I_{rr}=0.1 \times I_R, R_L=100\Omega$	$t_{rr}$		4	nS

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

REV:B

## Rating and Characteristic Curves (CDSH6-16-HF)

Fig.1 - Power Derating Curve

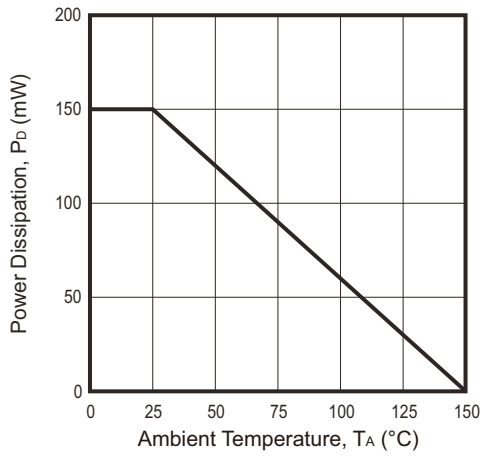


Fig.2 - Forward Characteristics

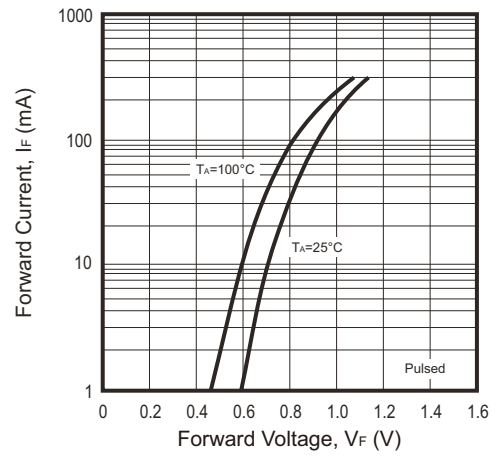


Fig.3 - Capacitance Characteristics

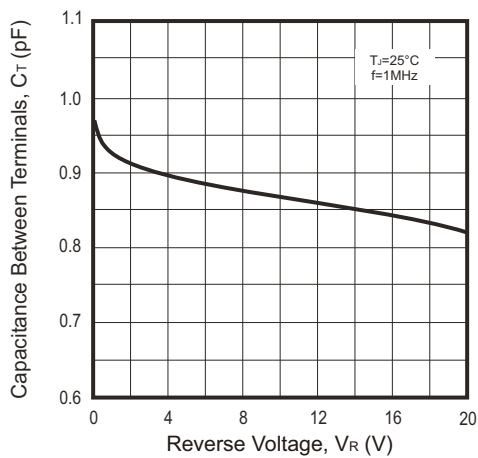
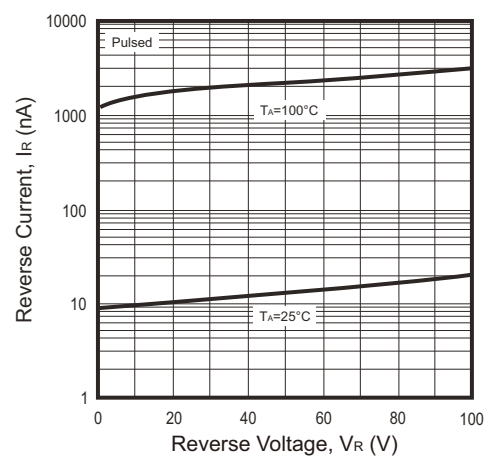
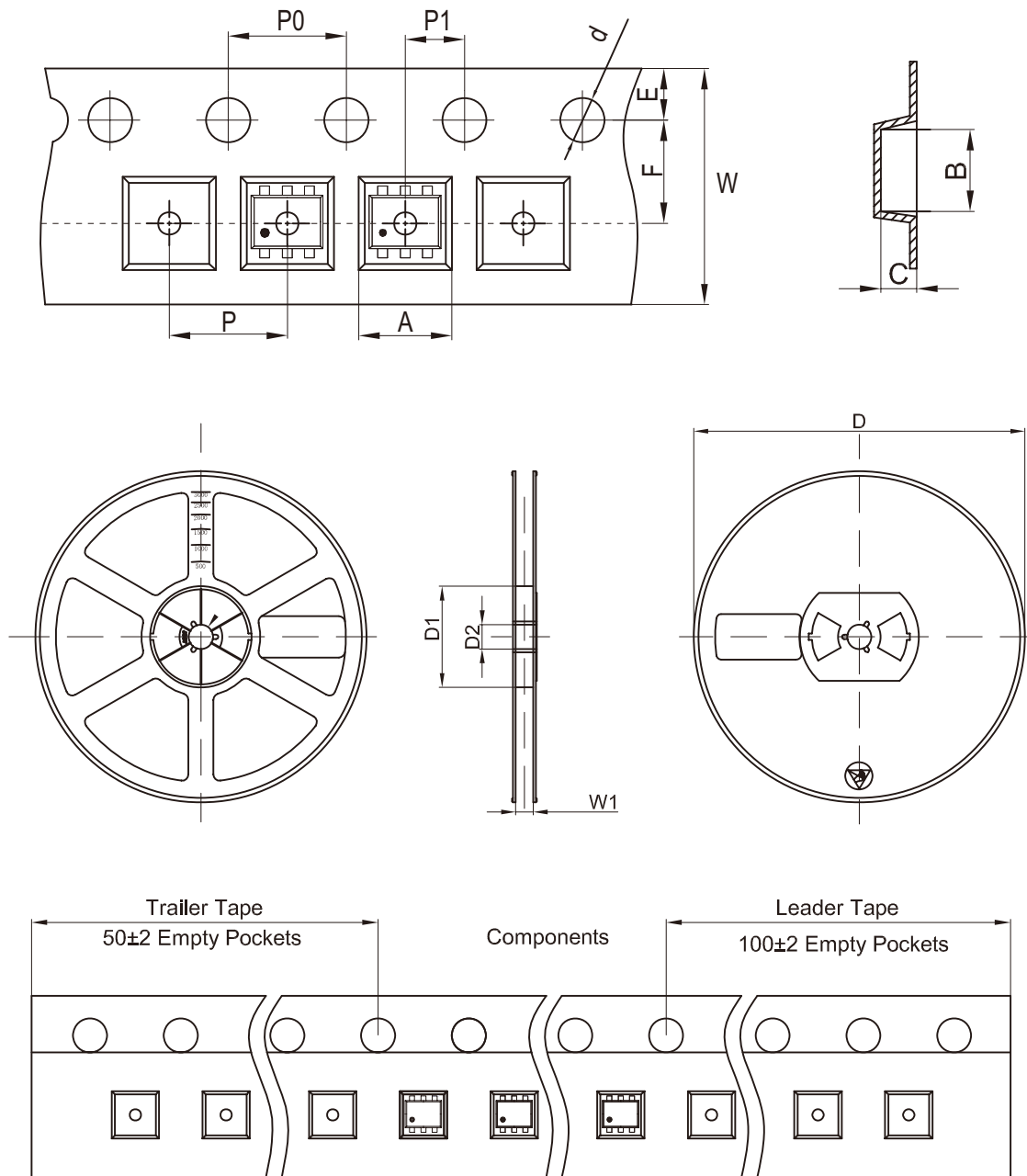


Fig.4 - Reverse Characteristics



## 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 ± 2.0	54.40 ± 1.0	13.00 ± 1.0
	(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

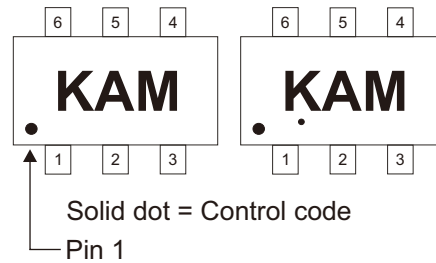
SOT-563	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 ± 0.10	9.50 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.158 ± 0.004	0.158 ± 0.004	0.079 ± 0.004	0.315 ± 0.004	0.374 ± 0.039

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REV:B

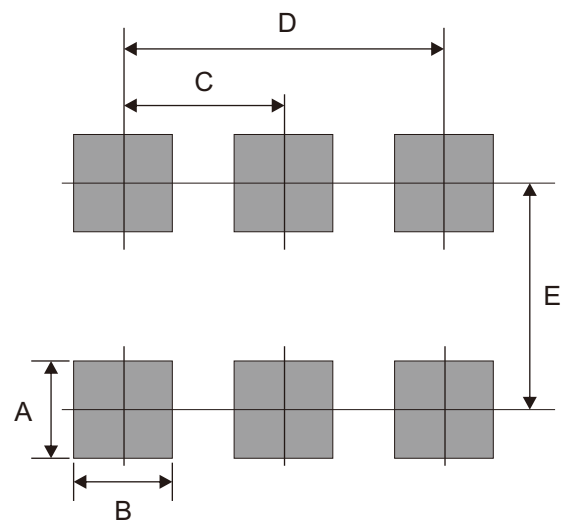
## Marking Code

Part Number	Marking Code
CDSH6-16-HF	KAM



## Suggested P.C.B. PAD Layout

SIZE	SOT-563	
	(mm)	(inch)
A	0.50	0.020
B	0.30	0.012
C	0.50	0.020
D	1.00	0.039
E	1.40	0.055



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

## Looking for pricing, stock, or lifecycle information?

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