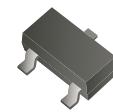


## CDSH3-21-G

**Voltage: 200 Volts**

**Current: 200 mA**

**RoHS Device**

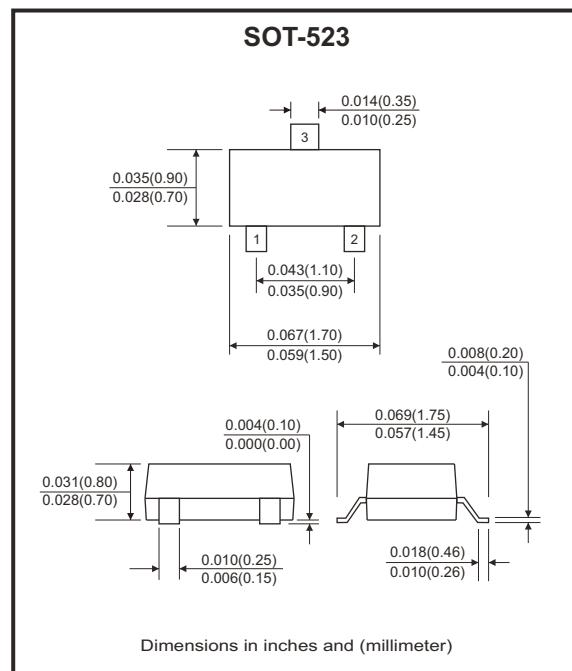


### Features

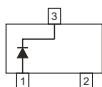
- Fast switching speed.
- For general purpose switching applications.
- High conductance.

### Mechanical data

- Case: SOT-523, molded plastic.
- Terminals: Solder plated, solderable per MIL-STD-202E, method 208C.
- Weight: 0.002 grams approx.



### Circuit Diagram



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

Parameter	Symbol	Value	Unit
Peak repetitive peak reverse voltage	$V_{RRM}$		
Working peak reverse voltage	$V_{RWM}$	200	V
DC blocking voltage	$V_R$		
Forward continuous current	$I_{FM}$	400	mA
Averaged rectified output current	$I_o$	200	mA
Non-repetitive peak forward surge current @ t=8.3ms	$I_{FSM}$	2.5	A
Power dissipation	$P_D$	150	mW
Thermal resistance junction to ambient	$R_{\theta JA}$	833	°C/W
Operating 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	Symbol	Conditions	Min.	Typ.	Max.	Unit
Reverse breakdown voltage	V <sub>(BR)</sub>	I <sub>R</sub> =100μA	200			V
Reverse current	I <sub>R</sub>	V <sub>R</sub> =200V			100	nA
Forward voltage	V <sub>F1</sub>	I <sub>F</sub> =100mA			1	V
	V <sub>F2</sub>	I <sub>F</sub> =200mA			1.25	
Total capacitance	C <sub>T</sub>	V <sub>R</sub> =0V, f=1MHz			5	pF
Reverse recovery time	T <sub>rr</sub>	I <sub>F</sub> =I <sub>R</sub> =30mA, I <sub>RR</sub> =0.1xI <sub>R</sub> , R <sub>L</sub> =100Ω			50	ns

## Rating and Characteristic Curves (CDSH3-21-G)

Fig.1 - Forward Characteristics

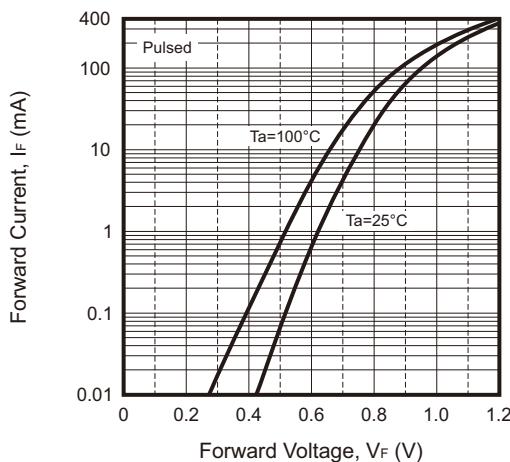


Fig.2 - Reverse Characteristics

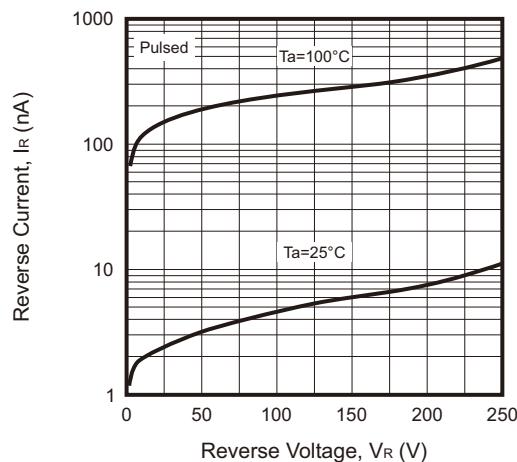


Fig.3 - Capacitance Characteristics

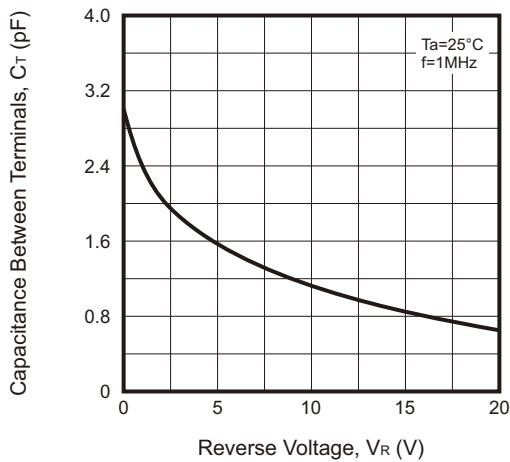
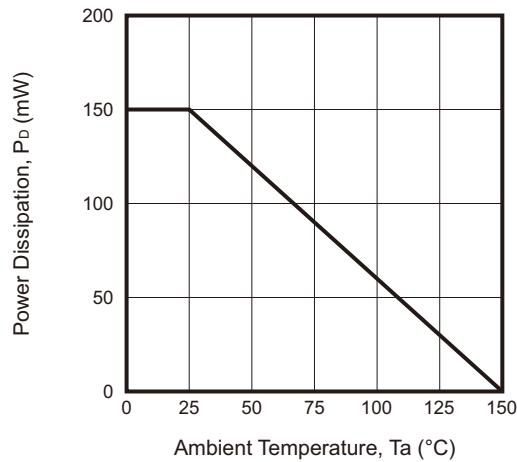


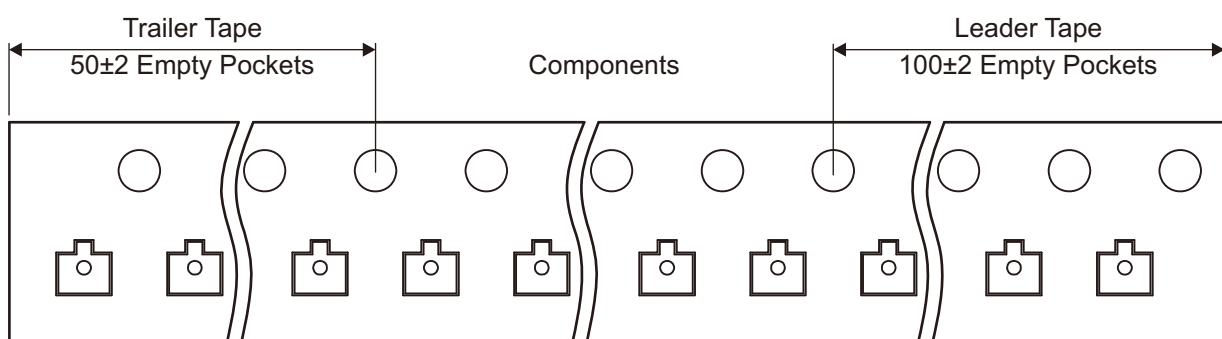
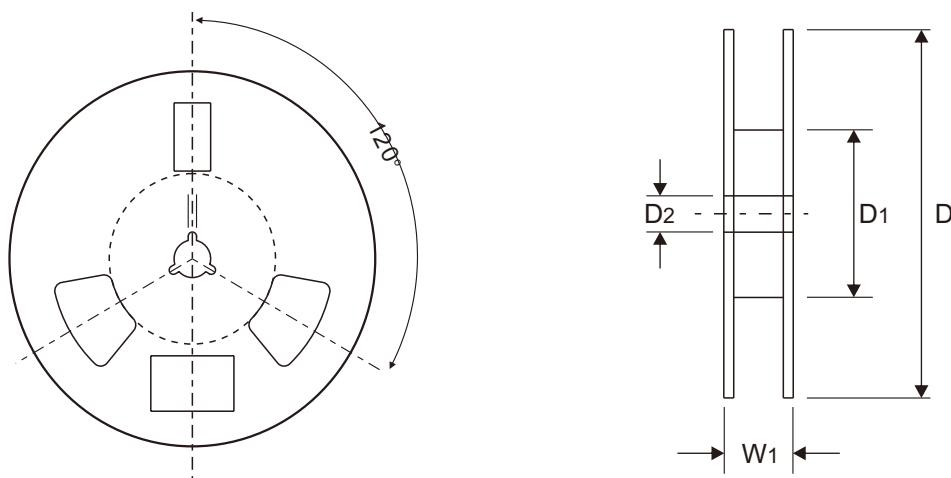
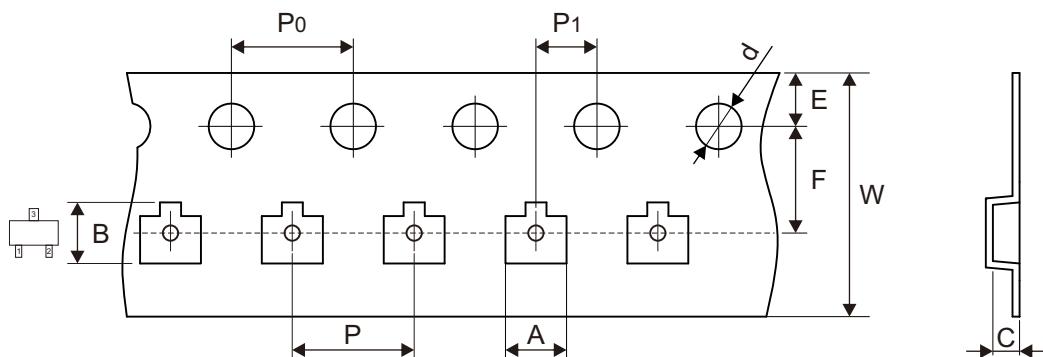
Fig.4 - Power Derating Curve



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

REV:B

## 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 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.073 ± 0.002	0.073 ± 0.002	0.034 ± 0.002	0.059 ± 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

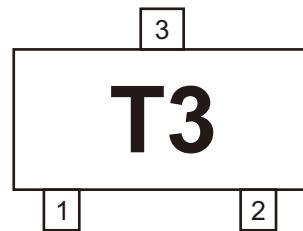
SOT-523	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	8.00 ± 0.30 - 0.10	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 ± 0.012 - 0.004	0.484 ± 0.039

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

REV:B

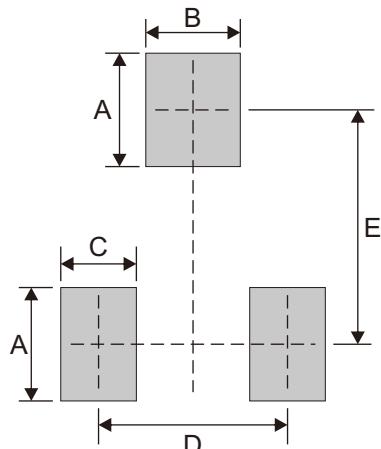
## Marking Code

Part Number	Marking Code
CDSH3-21-G	T3



## Suggested PAD Layout

SIZE	SOT-523	
	(mm)	(inch)
A	0.60	0.024
B	0.50	0.020
C	0.40	0.016
D	1.00	0.039
E	1.24	0.049



## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
SOT-523	3,000	7