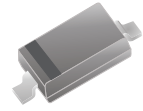


## CDSV4148-G

RoHS Device

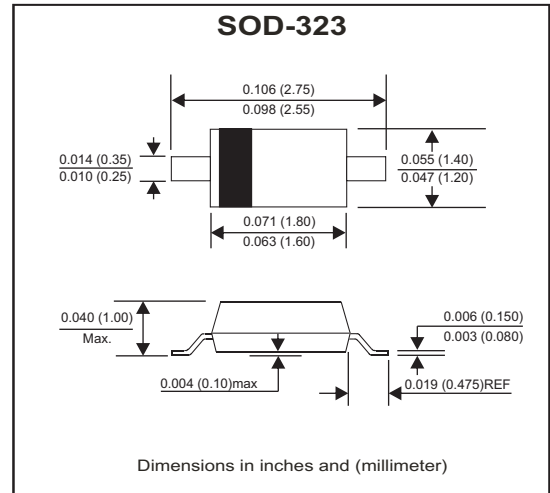


### Features

- Fast Switching Speed
- High Conductance
- Surface Mount Package Ideally Suited for Automatic Insertion
- For General Purpose Switching Applications.

### Mechanical data

- Case: SOD-323, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method208
- Mounting position: Any.



### Circuit Diagram



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

Parameter	Symbol	Value	Unit
Non-Repetitive peak reverse voltage	V <sub>RM</sub>	100	V
Peak repetitive peak reverse voltage	V <sub>RRM</sub>	100	V
Working peak reverse voltage	V <sub>RWM</sub>		
DC blocking voltage	V <sub>R</sub>		
RMS reverse voltage	V <sub>R(RMS)</sub>	71	V
Forward continuous current	I <sub>FM</sub>	300	mA
Average rectified output current	I <sub>o</sub>	150	mA
Non-Repetitive peak forward surge current @ t=8.3ms	I <sub>FSM</sub>	2.0	A
Power dissipation	P <sub>D</sub>	200	mW
Thermal resistance from junction to ambient	R <sub>θJA</sub>	625	°C/W
Junction temperature range	T <sub>j</sub>	-40 ~ +150	°C
Storage temperature range	T <sub>STG</sub>	-55 ~ +150	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	I <sub>F1</sub> = 1mA I <sub>F2</sub> = 10mA I <sub>F3</sub> = 50mA I <sub>F4</sub> = 150mA	V <sub>F</sub>			0.715 0.855 1.0 1.25	V
Reverse current	V <sub>R</sub> = 75 V V <sub>R</sub> = 20 V	I <sub>R</sub>			1 25	uA nA
Capacitance between terminals	V <sub>R</sub> = 0V, f = 1MHz	C <sub>T</sub>			2	pF
Reverse recovery time	I <sub>F</sub> = I <sub>R</sub> = 10mA, R <sub>L</sub> = 100 Ω, I <sub>rr</sub> = 0.1 X I <sub>R</sub>	T <sub>RR</sub>			4	nS

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

REV:B

## PATING AND CHARACTERISTIC CURVES (CDSV4148-G)

Fig.1 - Forward Characteristics

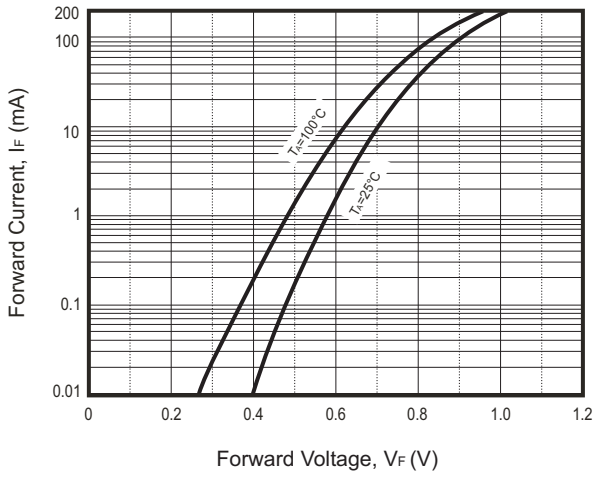


Fig.2 - Reverse Characteristics

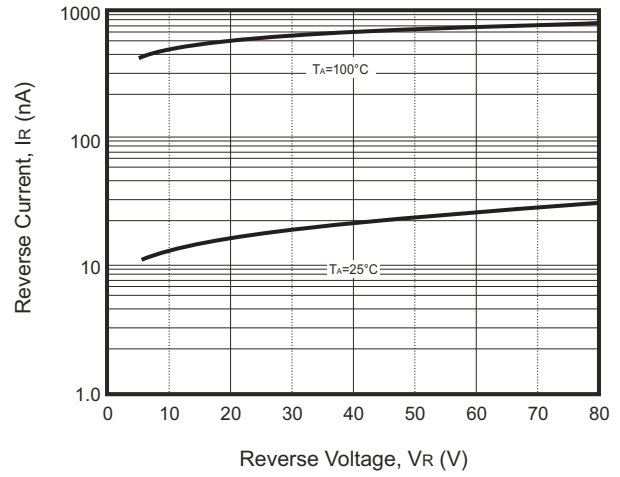


Fig.3 - Capacitance Characteristics

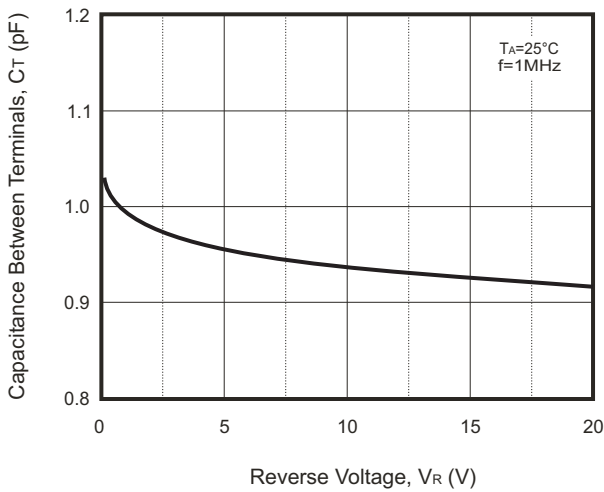
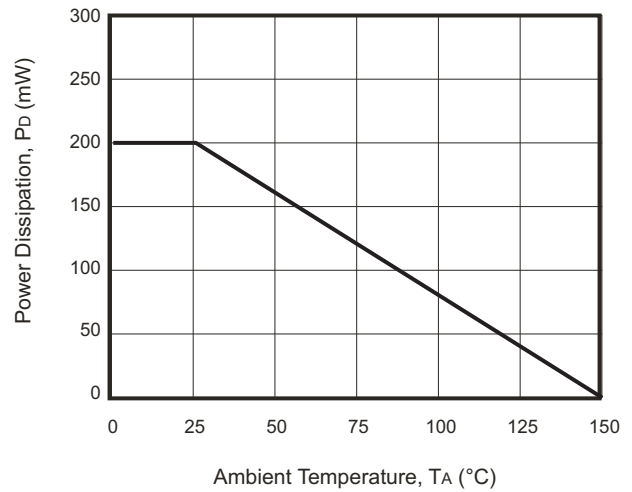
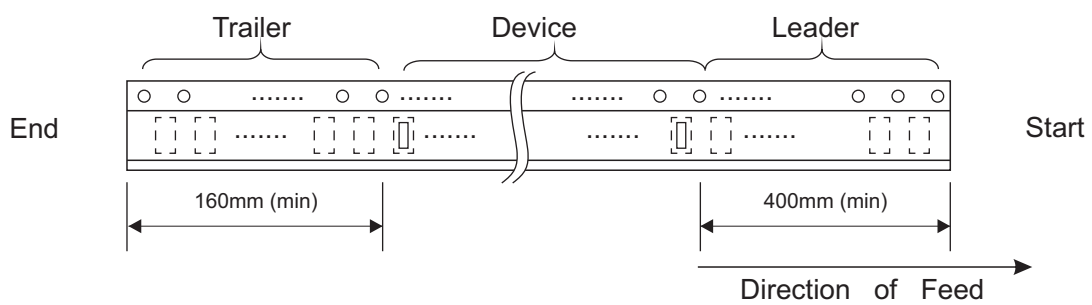
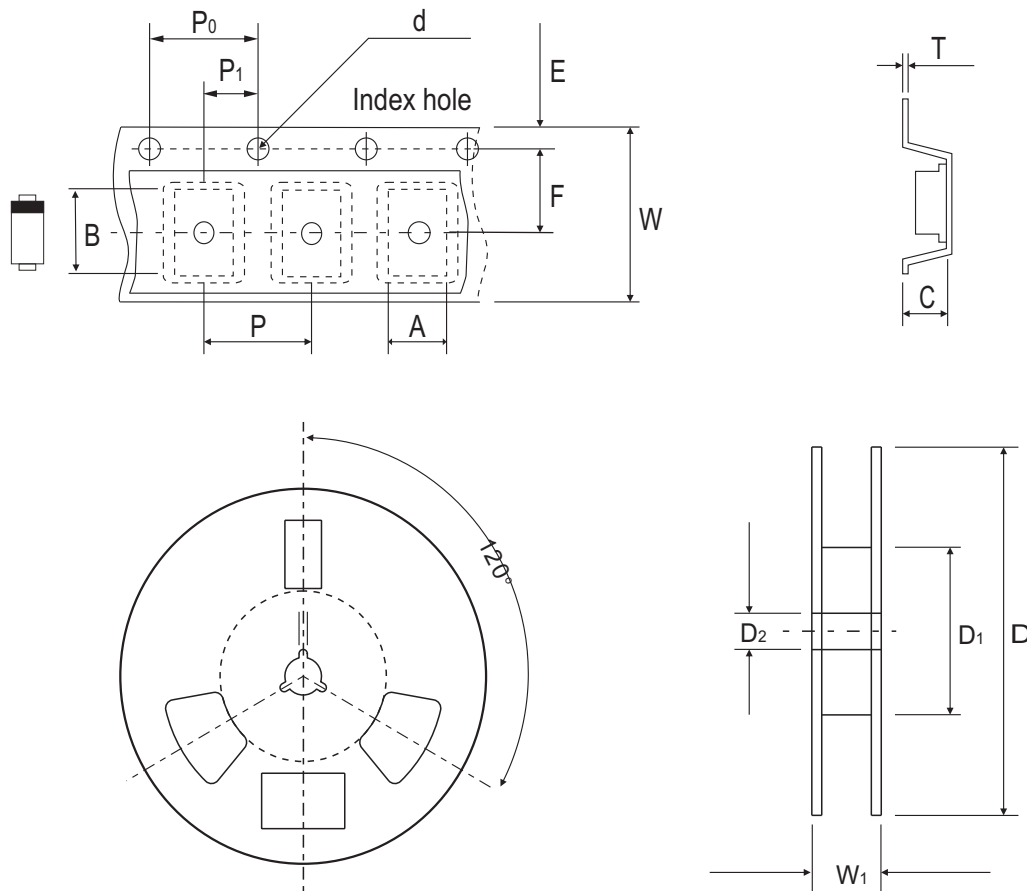


Fig.4 - Power Derating Curve



## Reel Taping Specification



SOD-323	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.46 ± 0.05	2.90 ± 0.05	1.25 ± 0.05	1.50 + 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.057 ± 0.002	0.114 ± 0.002	0.049 ± 0.002	0.059 + 0.004	7.008 ± 0.079	2.142 ± 0.039	0.512 ± 0.039

SOD-323	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	0.158 ± 0.004	0.158 ± 0.004	0.079 ± 0.004	0.315 + 0.012 / - 0.004	0.484 ± 0.039

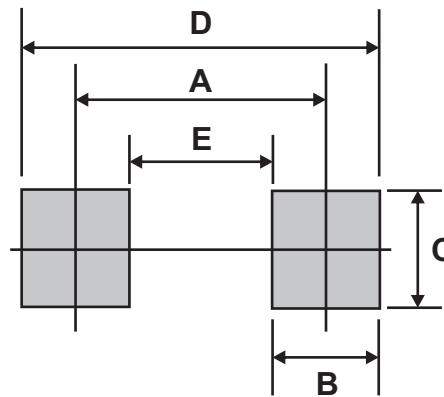
## Marking Code

Part Number	Marking Code
CDSV4148-G	T4



## Suggested PAD Layout

SIZE	SOD-323	
	(mm)	(inch)
A	2.15	0.085
B	0.80	0.031
C	0.70	0.028
D	2.95	0.116
E	1.35	0.053



## Standard Packaging

Case Type	REEL PACK	
	REEL ( pcs )	Reel Size (inch)
SOD-323	3,000	7

# Mouser Electronics

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