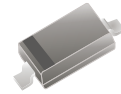


CDSV16-G

RoHS Device

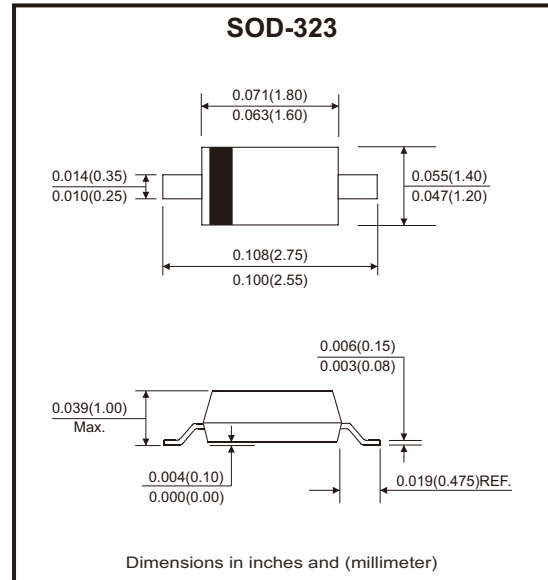


Features

- Fast switching speed.
- Surface mount package ideally suited for automatic insertion.
- For general purpose switching applications.
- High conductance.

Mechanical data

- Case: SOD-323, Molded plastic
- Terminals: Solderable per MIL-STD-202, Method 208
- Weight: 0.01 grams (approx.)



Circuit Diagram



Maximum Rating and Electrical Characteristics, Single Diode

(at Ta=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Limit	Unit
Non-repetitive peak reverse voltage		V_{RM}	100	V
Peak repetitive peak reverse voltage		V_{RRM}	100	V
Working peak reverse voltage		V_{RWM}		
DC blocking voltage		V_R		
RMS reverse voltage		$V_{R(RMS)}$	71	V
Forward continuous current		I_{FM}	300	mA
Average rectified output current		I_o	150	mA
Peak forward surge current	$T_P = 1\mu S$ $T_P = 1S$	I_{FSM}	2 1	A
Power dissipation		P_D	200	mW
Thermal resistance from junction to ambient		$R_{\theta JA}$	625	°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	Typ	Max	Unit
Forward voltage	$I_F = 1 \text{ mA DC}$ $I_F = 10 \text{ mA DC}$ $I_F = 50 \text{ mA DC}$ $I_F = 150 \text{ mA DC}$	V_F			0.715 0.855 1.0 1.25	V
Reverse current	$V_R = 20 \text{ V}$ $V_R = 75 \text{ V}$	I_R			25 1	nA μA
Capacitance between terminals	$f = 1 \text{ MHz}$, and 0VDC reverse voltage	C_T			2	pF
Reverse recovery time	$I_F = I_R = 10 \text{ mA}$, $R_L = 100\Omega$, $I_{rr} = 0.1 \times I_R$	T_{RR}			4	nS

Rating and Characteristic Curves (CDSV16-G)

Fig.1 - Forward Characteristics

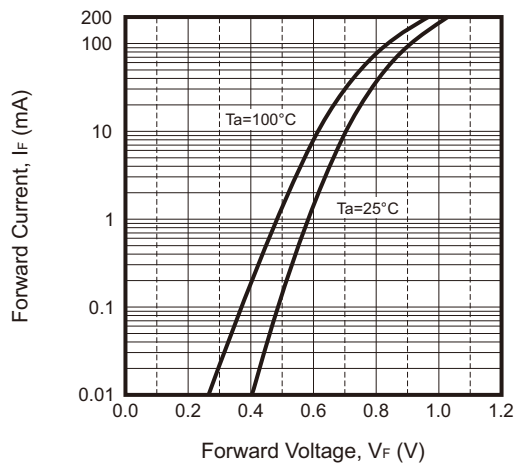


Fig.2 - Reverse Characteristics

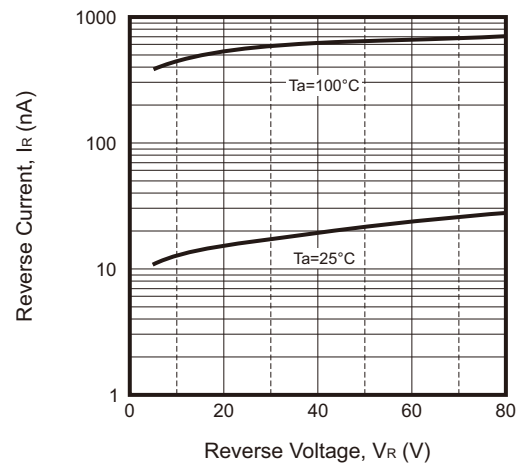


Fig.3 - Capacitance Characteristics

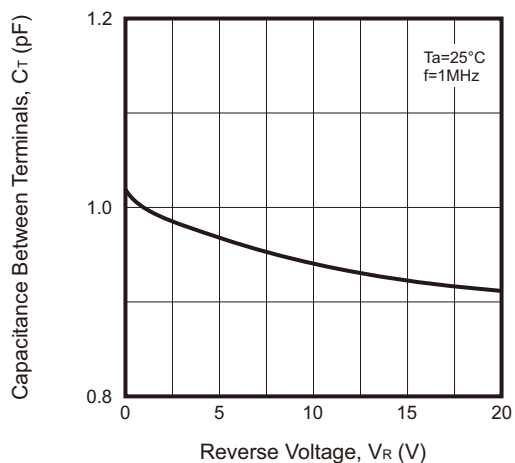
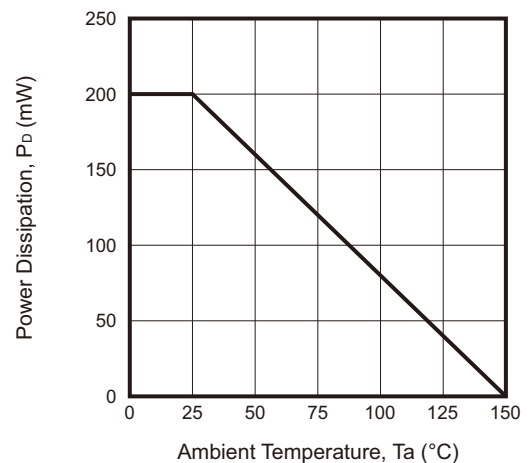
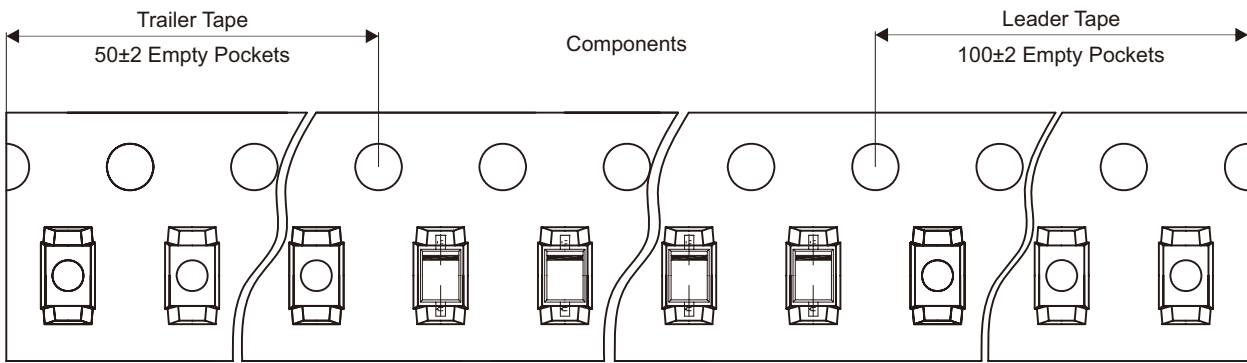
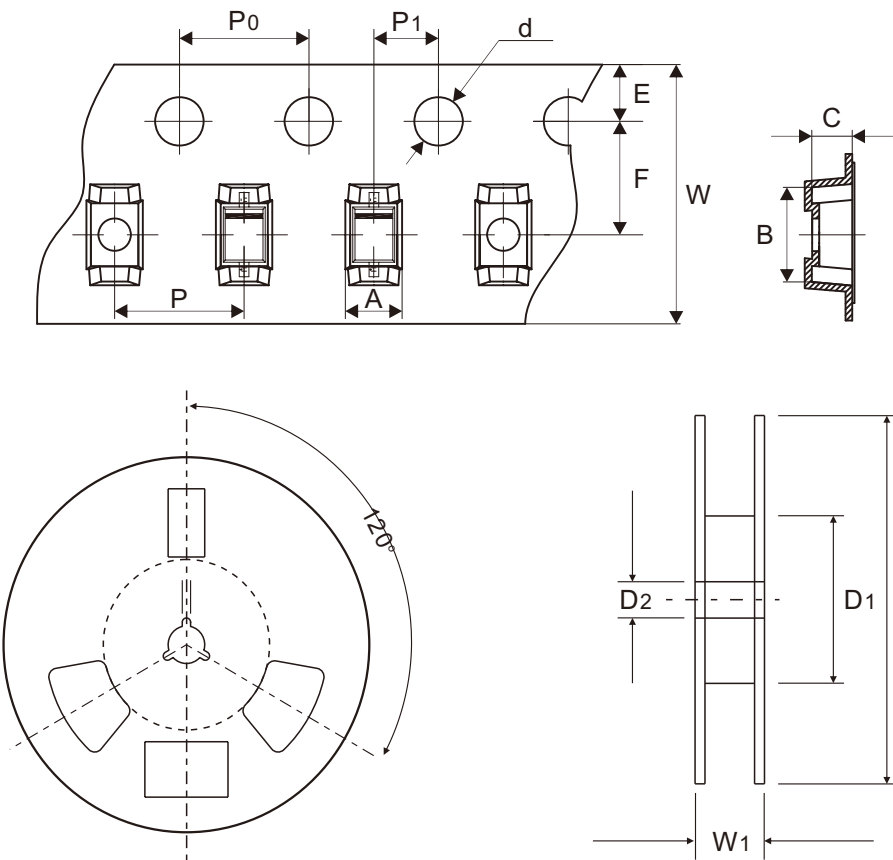


Fig.4 - Power Derating Curve



Reel Taping Specification



SOD-323	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.48 ± 0.05	3.30 ± 0.05	1.25 ± 0.05	1.50 + 0.10	178.00 ± 2.00	54.40 ± 1.00	13.00 ± 1.00
	(inch)	0.058 ± 0.002	0.130 ± 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	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.315 + 0.012 - 0.004	0.484 ± 0.039

Marking Code

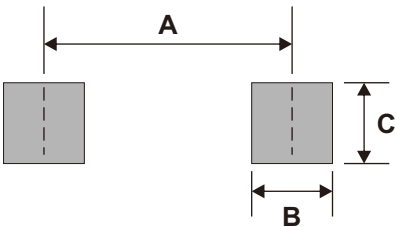
Part Number	Marking Code
CDSV16-G	T6



 = Cathode band

Suggested PAD Layout

SIZE	SOD-323	
	(mm)	(inch)
A	2.15	0.085
B	0.70	0.028
C	0.70	0.028



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)
SOD-323	3,000	7