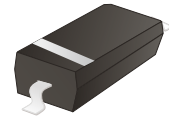


CDSW16-G

RoHS Device

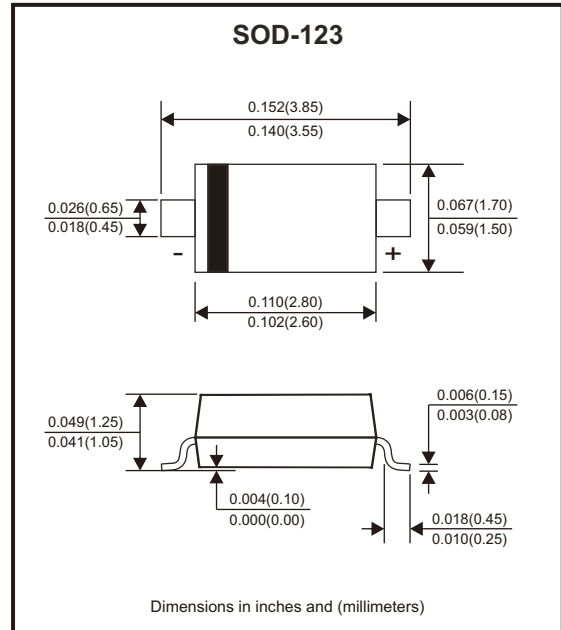


Features

- Fast switching speed.
- Electrically identical to standard JEDEC.
- High conductance.
- Surface mount package ideally suited for automatic insertion.
- Flat package SOD-123 in stead mini-MELF package.

Mechanical data

- Case: SOD-123, molded plastic.
- Terminals: Soderable per MIL-STD-202, method 208.
- Weight: 0.01 grams (approx.).



Circuit Diagram



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

Parameter	Conditions	Symbol	Value	Unit
Non-repetitive peak reverse voltage		V _{RM}	100	V
Peak repetitive peak reverse voltage		V _{R(RM)}	100	V
Working peak reverse voltage		V _{R(WM)}		
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 = 1μS T _P = 1S	I _{FSM}	2 1	A
Power dissipation		P _D	400	mW
Thermal resistance from junction to ambient		R _{θJA}	250	°C/W
Junction temperature		T _j	150	°C
Storage temperature range		T _{STG}	-55 ~ +150	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 1\text{mA}$ $I_F = 10\text{mA}$ $I_F = 50\text{mA}$ $I_F = 150\text{mA}$	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 (CDSW16-G)

Fig.1 - Forward Characteristics

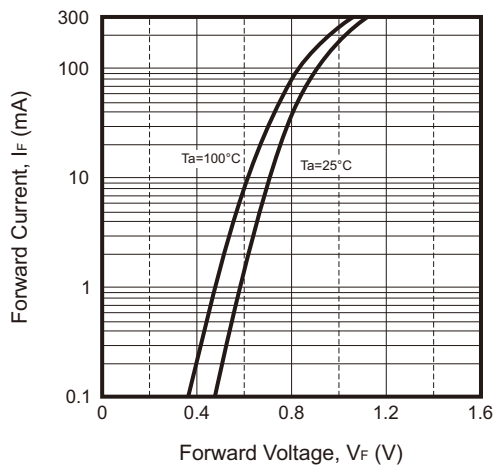


Fig.2 - Reverse Characteristics

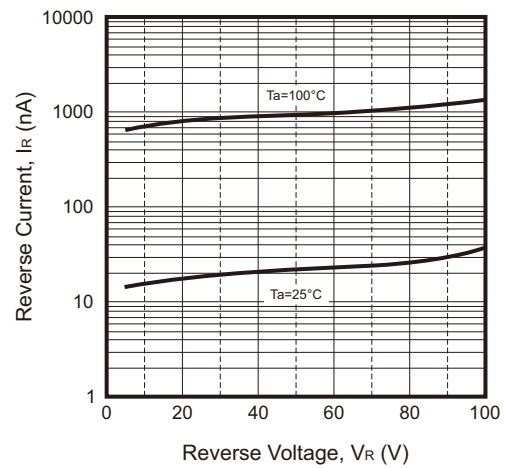


Fig.3 - Capacitance Characteristics

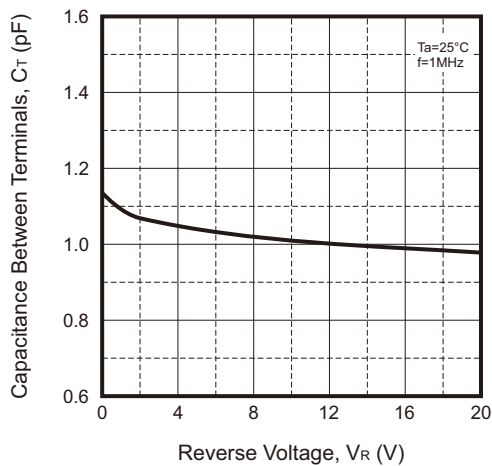
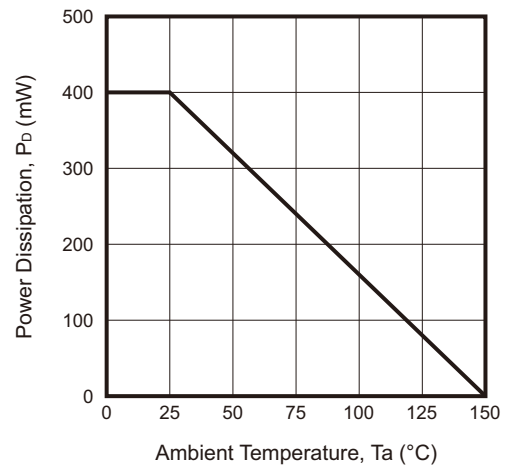
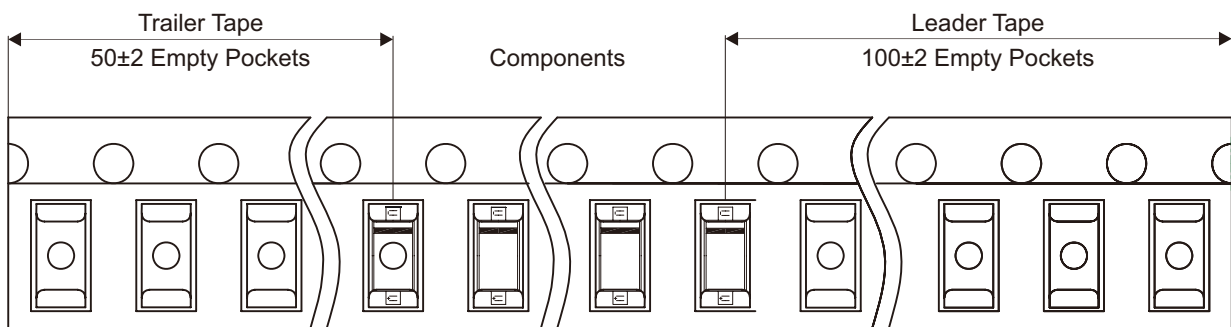
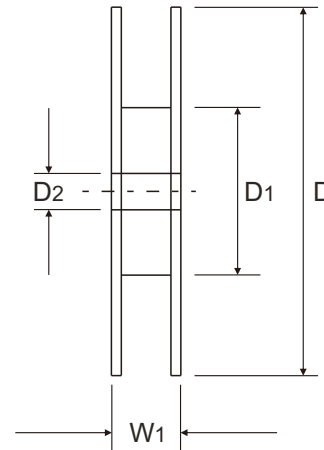
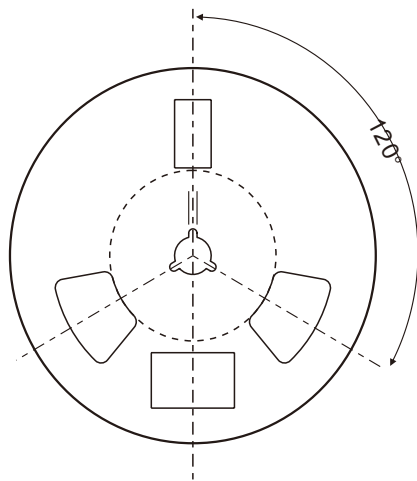
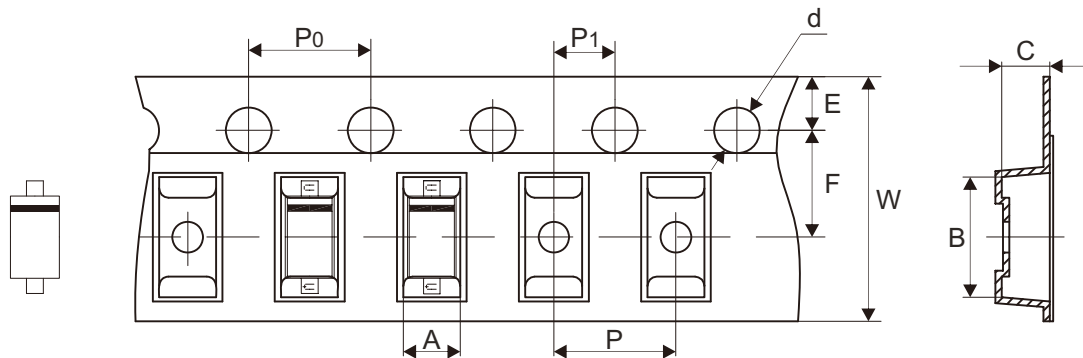


Fig.4 - Power Derating Curve



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

Reel Taping Specification



SOD-123	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	1.85 ± 0.10	3.95 ± 0.10	1.57 ± 0.10	1.55 ± 0.10	178.00 ± 1.00	54.40 ± 0.40	13.00 ± 0.20
	(inch)	0.073 ± 0.004	0.156 ± 0.004	0.062 ± 0.004	0.061 ± 0.004	7.008 ± 0.039	2.142 ± 0.016	0.512 ± 0.008

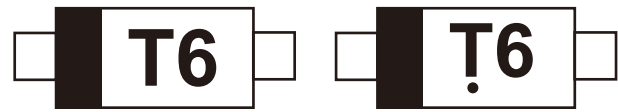
SOD-123	SYMBOL	E	F	P	P ₁	P ₀	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	2.00 ± 0.10	4.00 ± 0.10	8.00 ± 1.00	12.30 ± 1.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.079 ± 0.004	0.157 ± 0.004	0.315 ± 0.039	0.484 ± 0.039

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

REV:C

Marking Code

Part Number	Marking Code
CDSW16-G	T6

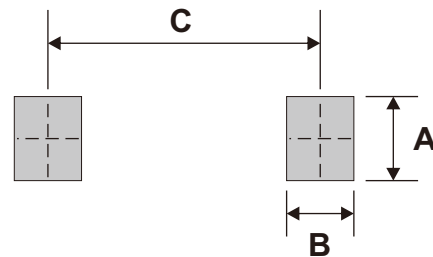


■ = Cathode band

Solid dot = Control code

Suggested P.C.B. PAD Layout

SIZE	SOD-123	
	(mm)	(inch)
A	1.00	0.039
B	0.80	0.031
C	3.24	0.128



Note: 1.The pad layout is for reference purposes only.

Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
SOD-123	3,000	7