

## CDSW4148-G

High Speed  
RoHS Device

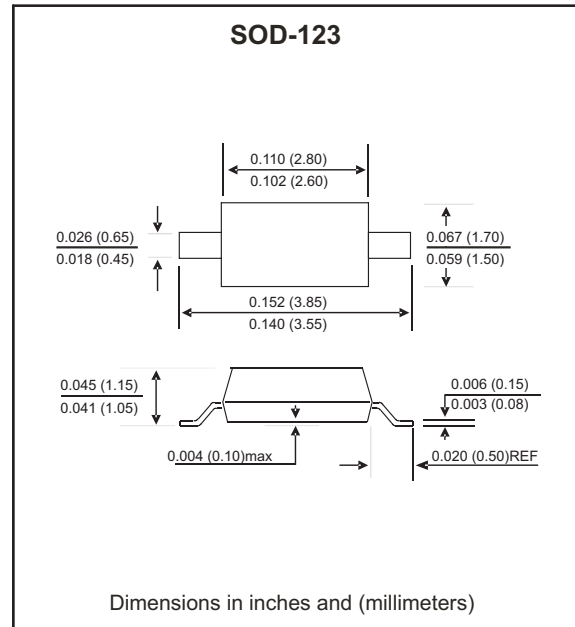


### Features

- 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: Solderable per MIL-STD-202, Method 208
- Weight: 0.0097 gram(approx.).



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

Parameter	Conditions	Symbol	Min	Max	Unit
Non-Repetitive peak reverse voltage		$V_{RM}$		100	V
Peak repetitive peak reverse voltage		$V_{RRM}$		75	V
Working peak reverse voltage		$V_{RWM}$		75	V
DC blocking voltage		$V_R$		75	V
RMS reverse voltage		$V_{R(RMS)}$		53	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		$P_D$		400	mW
Thermal Resistance (Junction to ambient)		$R_{\theta JA}$		315	°C/W
Storage temperature		$T_{STG}$	-65	+150	°C
Junction temperature		$T_j$	-65	+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 $V_R = 0\text{V DC}$	$C_J$			2	pF
Reverse recovery time	$I_F = I_R = 10\text{ mA}$ , $R_L = 100\text{ ohms}$ , $I_{rr} = 0.1 \times I_R$	$T_{RR}$			4	nS

## Typical Characteristics (CDSW4148-G)

Fig.1 - Forward Characteristics

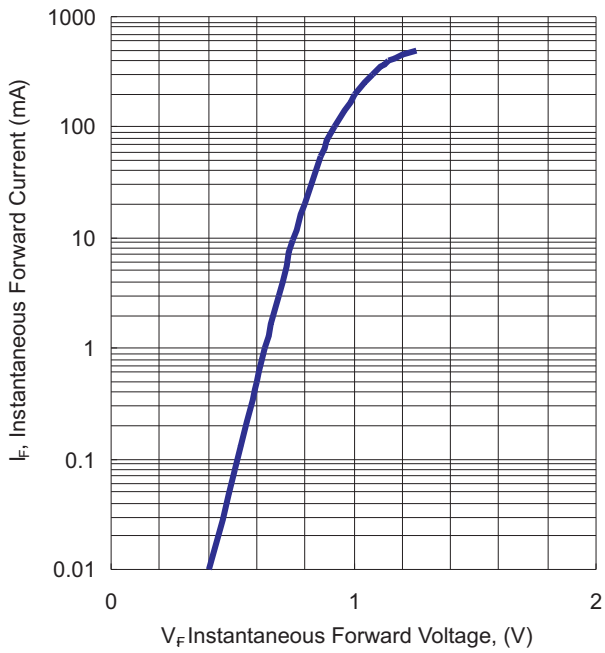
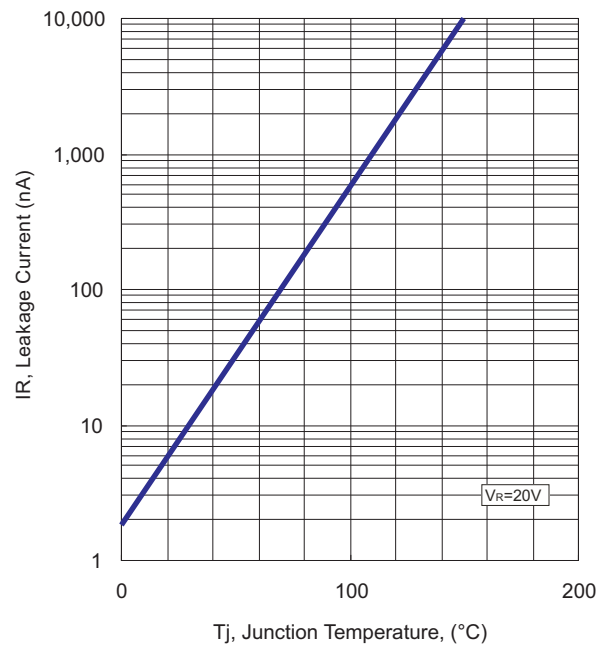
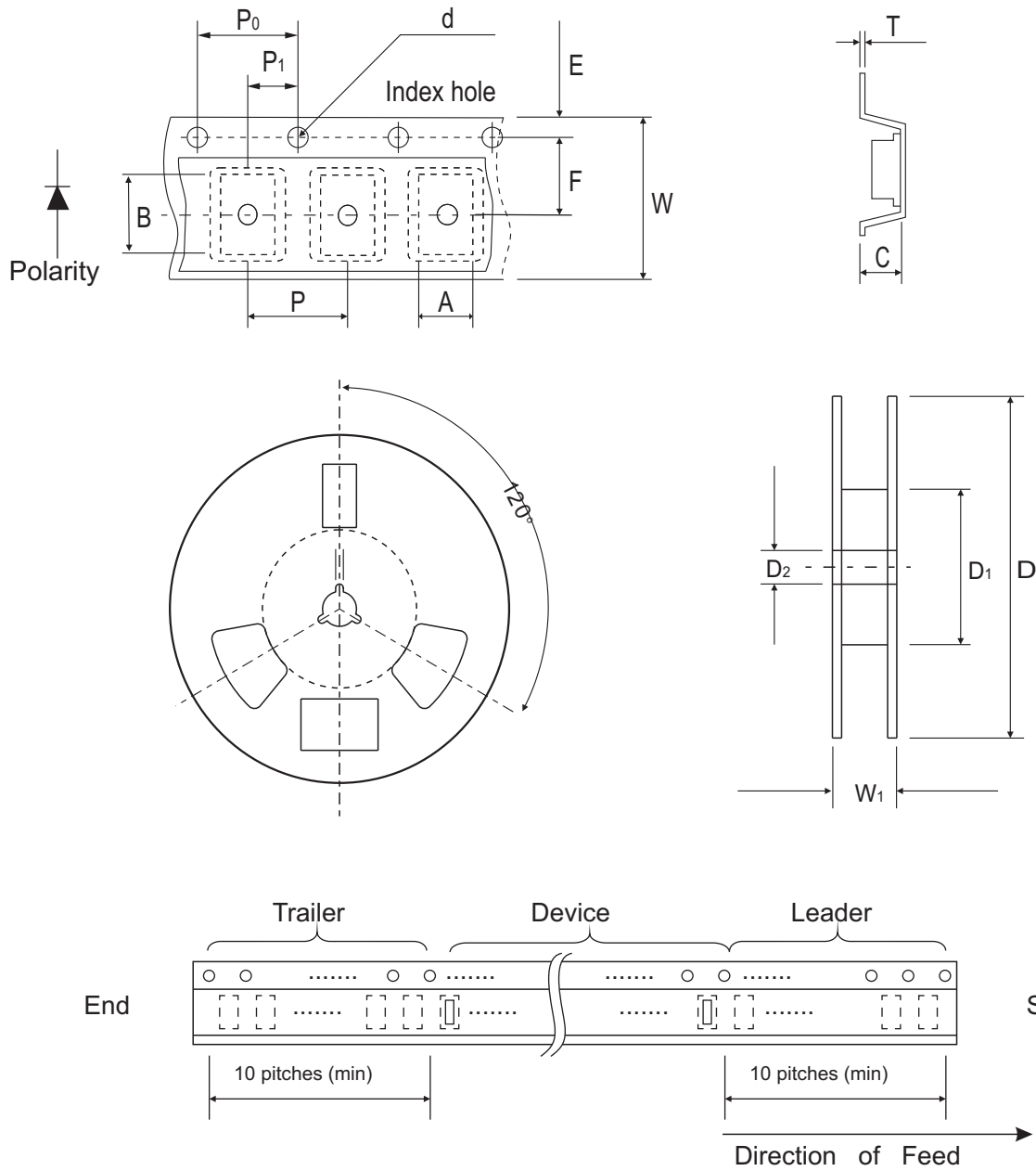


Fig.2 - Leakage current V.S. Junction Temperature



## Reel Taping Specification



SOD-123	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	$1.85 \pm 0.10$	$3.94 \pm 0.10$	$1.57 \pm 0.10$	$1.55 \pm 0.10$	$178 \pm 1.00$	$54.40 \pm 0.40$	$13.0 \pm 0.20$
	(inch)	$0.073 \pm 0.004$	$0.155 \pm 0.004$	$0.062 \pm 0.004$	$0.061 \pm 0.004$	$7.008 \pm 0.039$	$2.142 \pm 0.016$	$0.512 \pm 0.008$

SOD-123	SYMBOL	E	F	P	P0	P1	W	W1
	(mm)	$1.75 \pm 0.10$	$3.50 \pm 0.05$	$4.00 \pm 0.10$	$4.00 \pm 0.10$	$2.00 \pm 0.10$	$8.00 + 0.30 / - 0.10$	$9.50 \pm 1.00$
	(inch)	$0.069 \pm 0.004$	$0.138 \pm 0.002$	$0.158 \pm 0.004$	$0.158 \pm 0.004$	$0.079 \pm 0.004$	$0.315 + 0.012 / - 0.004$	$0.374 \pm 0.039$

## Marking Code

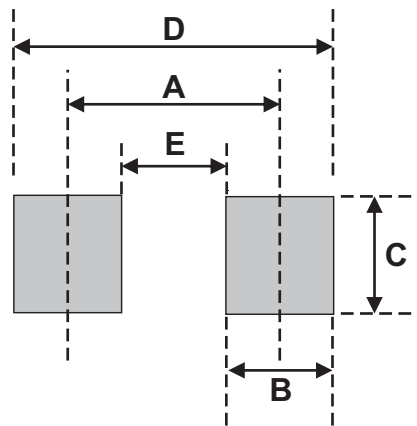
Part Number	Marking Code
CDSW4148-G	T4



xx = Product type marking code

## Suggested PAD Layout

SIZE	SOD-123	
	(mm)	(inch)
A	3.35	0.132
B	0.80	0.032
C	1.00	0.039
D	4.15	0.163
E	2.55	0.100



## Standard Packaging

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