

CDSW4148-HF

High Speed
RoHS Device

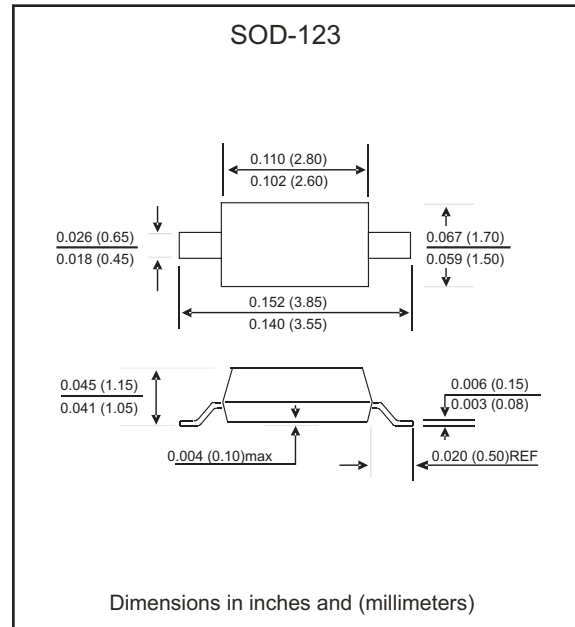


Features

- Halogen free
- 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
- Pb free product.

Mechanical data

- Case: SOD-123, Molded Plastic
- Terminals: Solderable per MIL-STD-202, Method 208



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		500	mW
Thermal Resistance (Junction to ambient)		$R_{\theta JA}$		250	°C/W
Storage temperature		T_{STG}	-65	+150	°C
Junction temperature		T_j		+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_T			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-HF)

Fig. 1 - Forward Characteristics

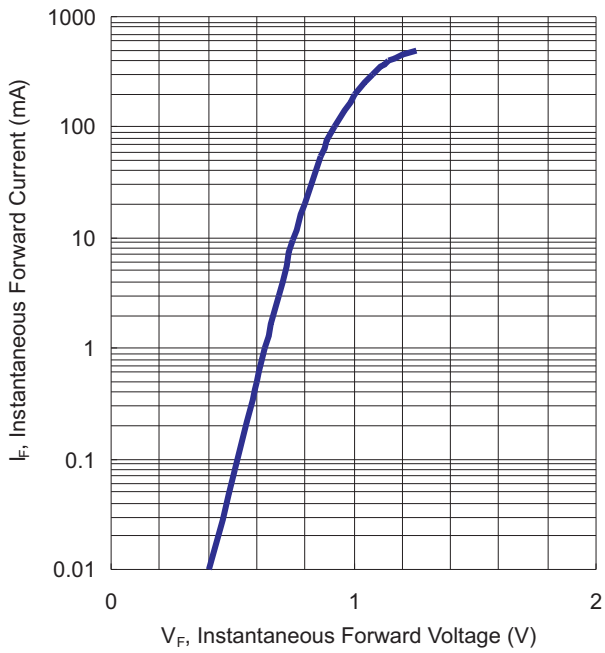
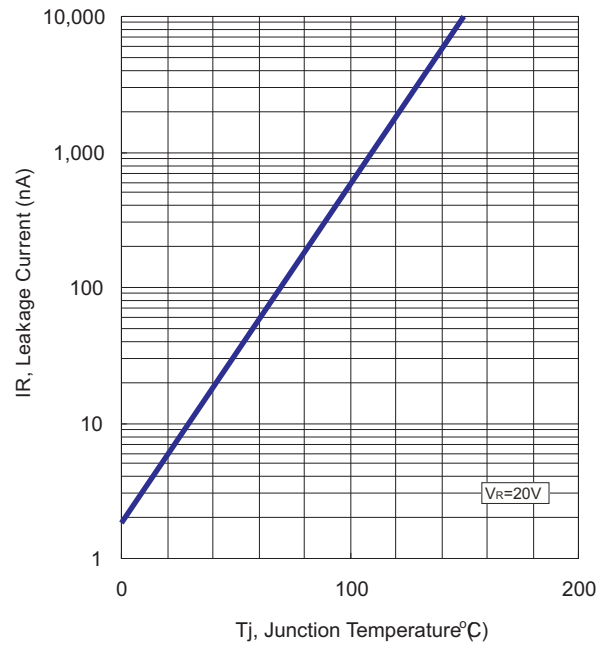
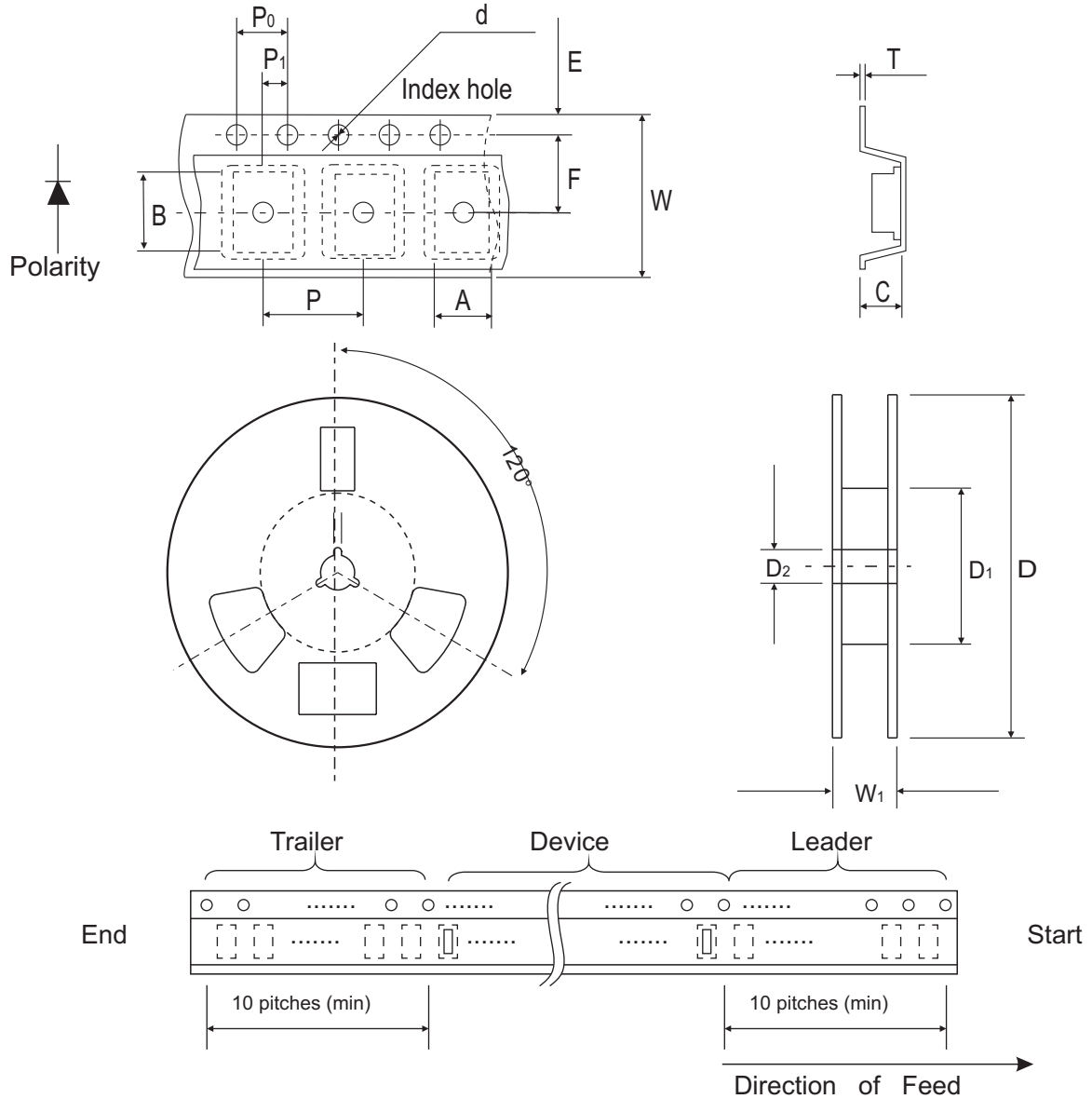


Fig. 2 - Leakage current V.S. Junction Temperature



Reel Taping Specification

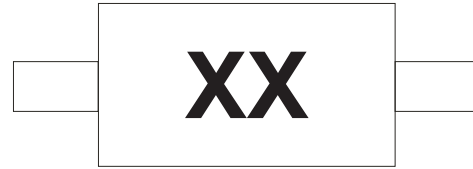


SOD-123	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.85 ± 0.10	3.94 ± 0.10	1.57 ± 0.10	1.55 ± 0.10	178 ± 1.00	54.40 ± 0.40	13.0 ± 0.20
	(inch)	0.073 ± 0.004	0.155 ± 0.004	0.062 ± 0.004	0.061 ± 0.004	7.008 ± 0.039	2.142 ± 0.016	0.512 ± 0.008

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

Marking Code

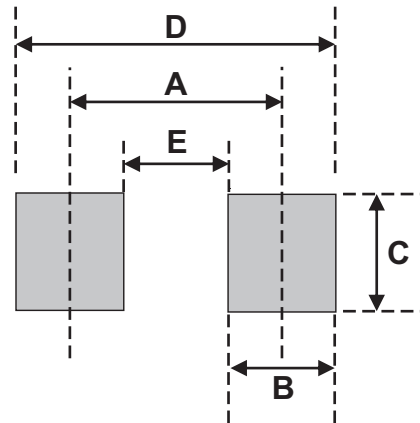
Part Number	Marking Code
CDSW4148-HF	T4



xx= Product type marking code

Suggested PAD Layout

SIZE	SOD-123	
	(mm)	(inch)
A	3.35	0.132
B	0.80	0.031
C	1.00	0.039
D	4.15	0.163
E	2.55	0.100



Standard Package

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
SOD-123	3000	7