

## CDSER4148-HF

### RoHS Device

### Halogen Free

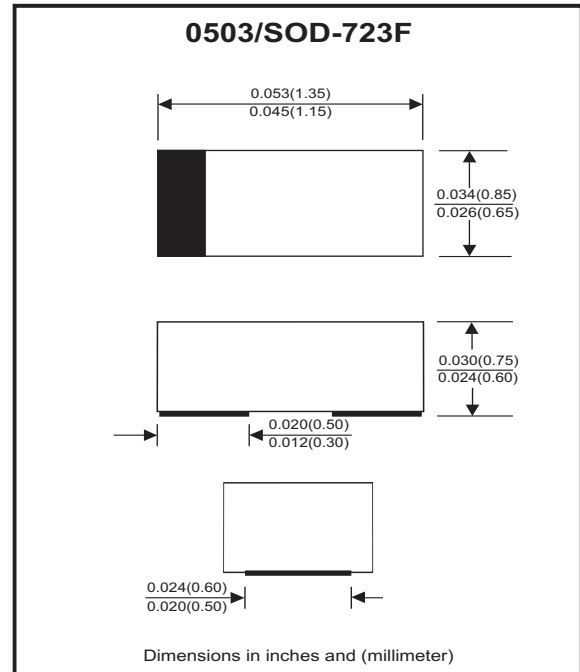


### Features

- High Speed.
- Designed for mounting on small surface.
- Extremely thin/leadless package.
- High mounting capability, strong surge withstand, high reliability.
- Use in sensitive electronics protection against voltage transients induced by inductive load switching and lighting on ICs, MOSFET, signal lines of sensor units for consumer, computer, industrial, automotive and telecommunication.

### Mechanical data

- Case: 0503/SOD-723F standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any.
- Weight: 0.002 grams(approx.).



### Circuit diagram



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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Repetitive peak reverse voltage		$V_{RRM}$			100	V
Reverse voltage		$V_R$			75	V
Average forward current		$I_O$			150	mA
Forward current, surge peak	$T_p=1\mu S$ $T_p=1mS$	$I_{FSM}$		4 1		A
Power dissipation		$P_D$			150	mW
Operating temperature range		$T_j$	-40		+125	°C
Storage temperature range		$T_{STG}$	-40		+125	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 50 \text{ mA DC}$	$V_F$			1.0	V
Reverse current	$V_R = 20V$ $V_R = 75V$	$I_R$			25 2.5	nA uA
Capacitance between terminals	$f = 1\text{MHz}$ , and 0 VDC reverse voltage	$C_T$			4	pF
Reverse recovery time	$I_F = I_R = 10 \text{ mA}$ , $R_L = 100 \text{ ohms}$ , $I_{rr} = 1\text{mA}$	$T_{rr}$			4	nS

## RATING AND CHARACTERISTIC CURVES (CDSER4148-HF)

Fig.1 - Forward Characteristics

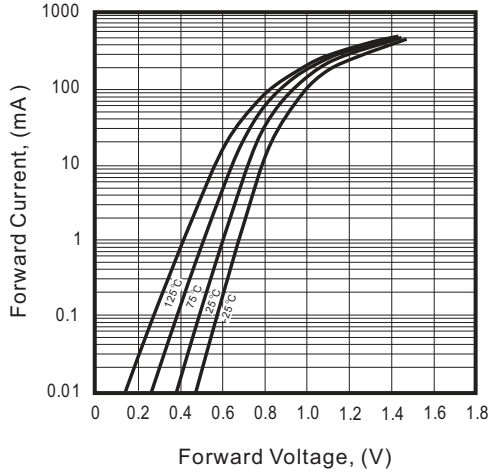


Fig.2 - Reverse Characteristics

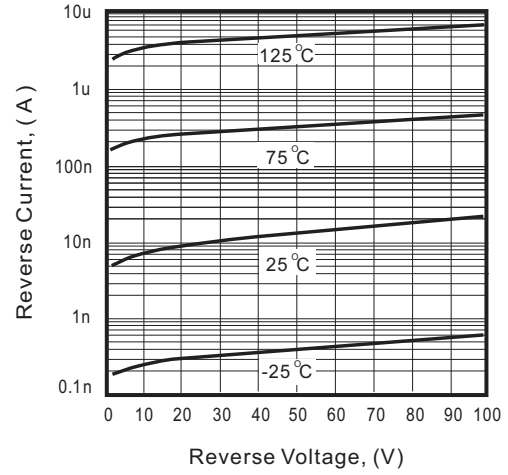


Fig.3 - Capacitance Between Terminals Characteristics

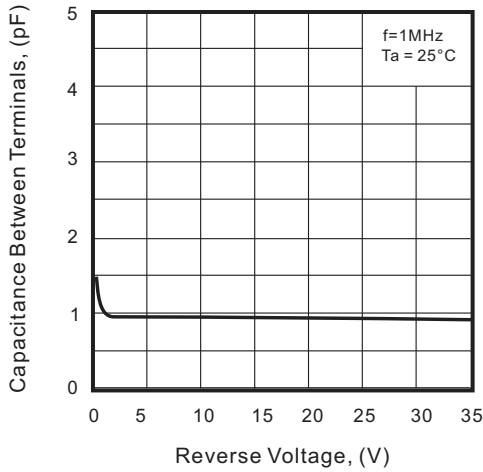
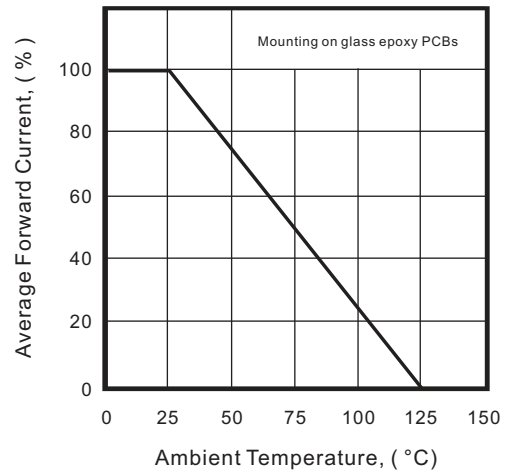
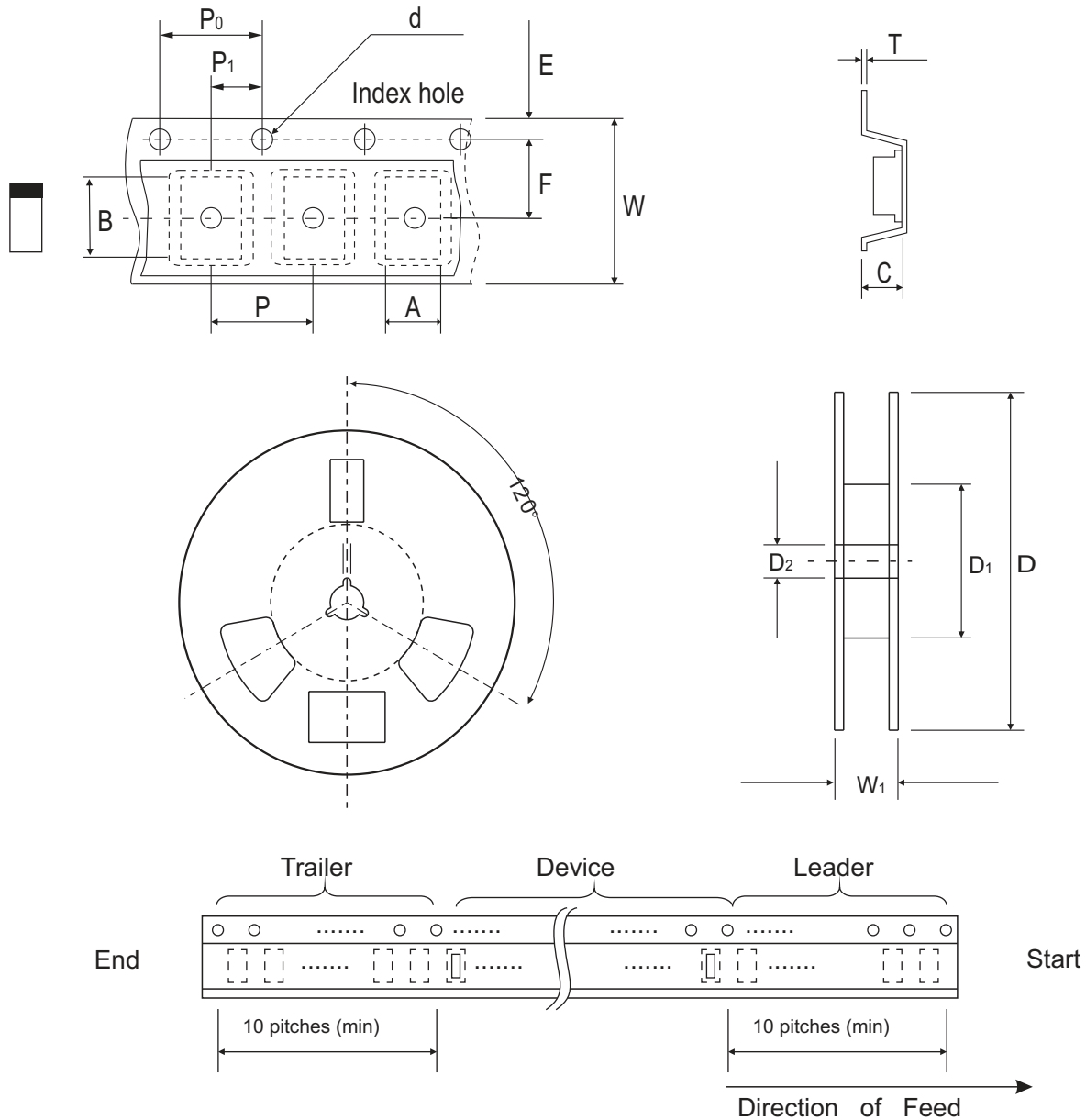


Fig.4 - Current Derating Curve



## Reel Taping Specification



0503 (SOD-723F)	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	0.90 ± 0.10	1.46 ± 0.10	0.80 ± 0.10	1.55 ± 0.05	178 ± 1	60.0 MIN.	13.0 ± 0.20
	(inch)	0.035 ± 0.004	0.057 ± 0.004	0.031 ± 0.004	0.061 ± 0.002	7.008 ± 0.04	2.362 MIN.	0.512 ± 0.008

0503 (SOD-723F)	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	T	W	W <sub>1</sub>
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.22 ± 0.05	8.00 ± 0.20	13.5 MAX.
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.009 ± 0.002	0.315 ± 0.008	0.531 MAX.

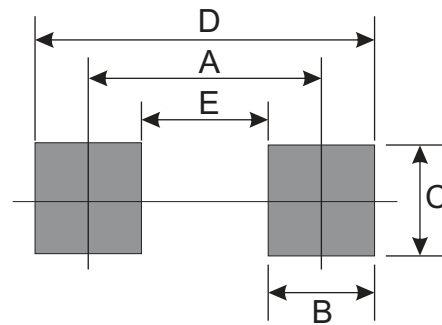
## Marking Code

Part Number	Marking Code
CDSER4148-HF	S3



## Suggested PAD Layout

SIZE	0503/SOD-723F	
	(mm)	(inch)
A	0.85	0.033
B	0.55	0.022
C	0.85	0.033
D	1.40	0.055
E	0.30	0.012



## Standard Packaging

Case Type	Qty Per Reel	Reel Size
	(Pcs)	(inch)
0503/SOD-723F	4,000	7