

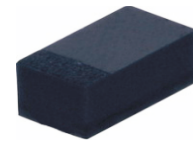
## CDSER4448-HF

$I_o = 125 \text{ mA}$

$V_R = 80 \text{ Volts}$

RoHS Device

Halogen Free



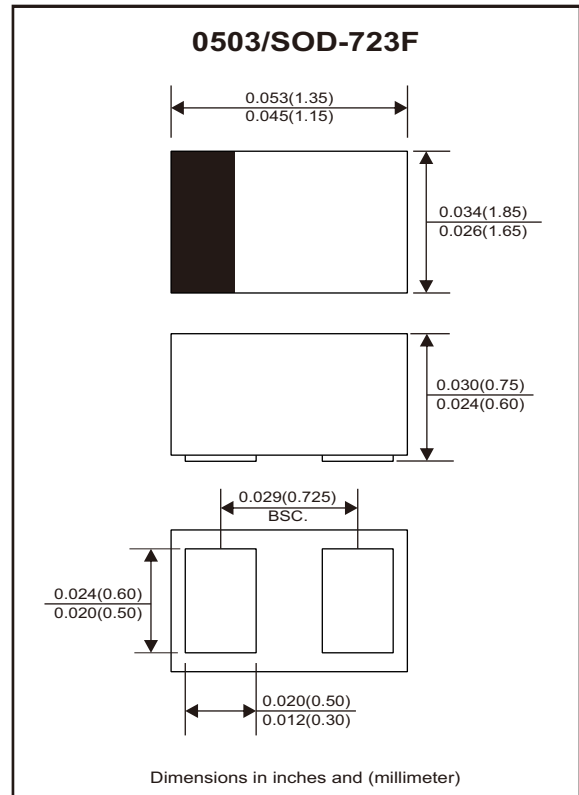
### Features

- Fast switching speed
- Designed for mounting on small surface.
- Extremely thin/leadless package.

### Mechanical data

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

### Circuit Diagram



### Maximum Rating (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Repetitive peak reverse voltage		$V_{RRM}$			100	V
Reverse voltage		$V_R$			80	V
Average forward current		$I_o$			125	mA
Forward current, surge peak	$T_p=1\mu\text{S}$ $T_p=8.3\text{mS}$	$I_{FSM}$			2 1	A
Power dissipation		$P_D$			125	mW
Operating temperature range		$T_j$	-40		+125	$^\circ\text{C}$
Storage temperature range		$T_{STG}$	-40		+125	$^\circ\text{C}$

### Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 5 \text{ mA}$ $I_F = 100 \text{ mA}$	$V_F$	0.62		0.72 1	V
Reverse current	$V_R = 20\text{V}$ $V_R = 80\text{V}$	$I_R$			25 100	nA
Capacitance between terminals	$f = 1\text{MHz}$ , and 0.5 VDC reverse voltage	$C_T$			9	pF
Reverse recovery time	$I_F = I_R = 10 \text{ mA}$ , $I_{rr} = 0.1 \times I_R$ , $R_L = 100 \text{ ohm}$	$T_{rr}$			9	nS

## RATING AND CHARACTERISTIC CURVES (CDSER4448-HF)

Fig.1 - Forward Characteristics

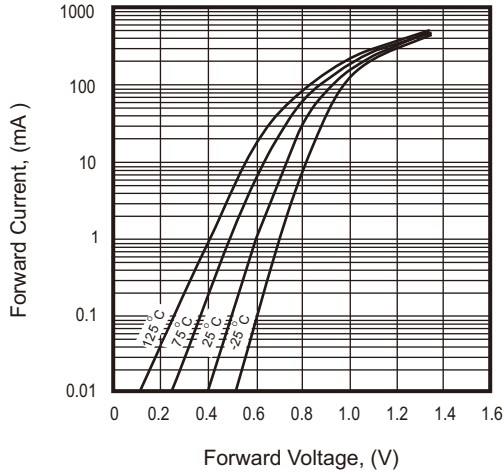


Fig.2 - Reverse Characteristics

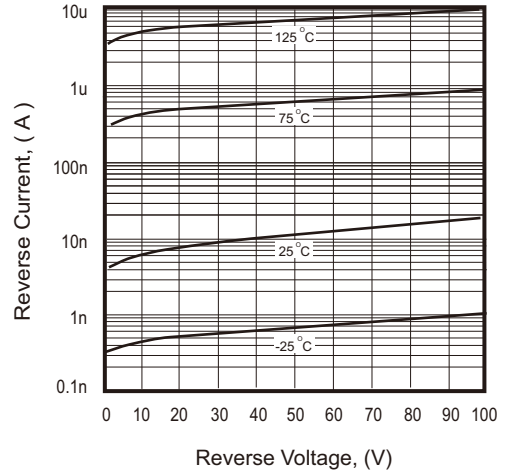


Fig.3 - Capacitance Between Terminals Characteristics

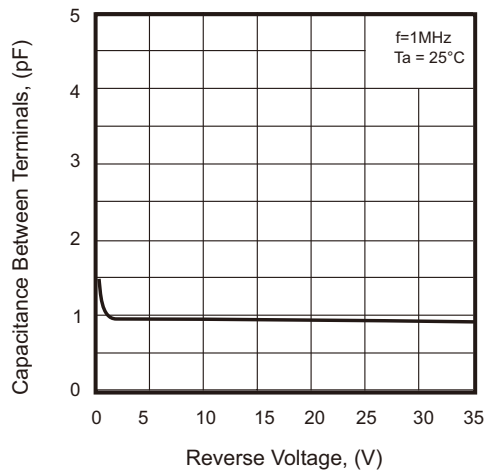
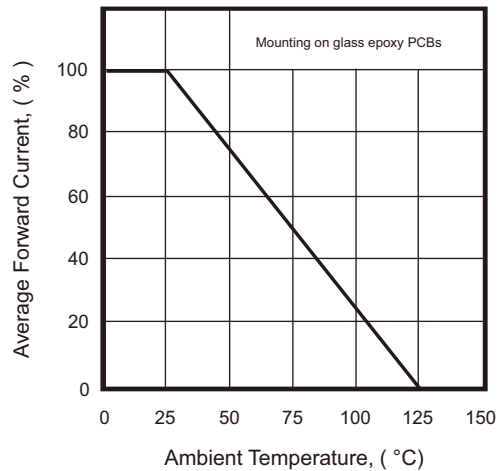
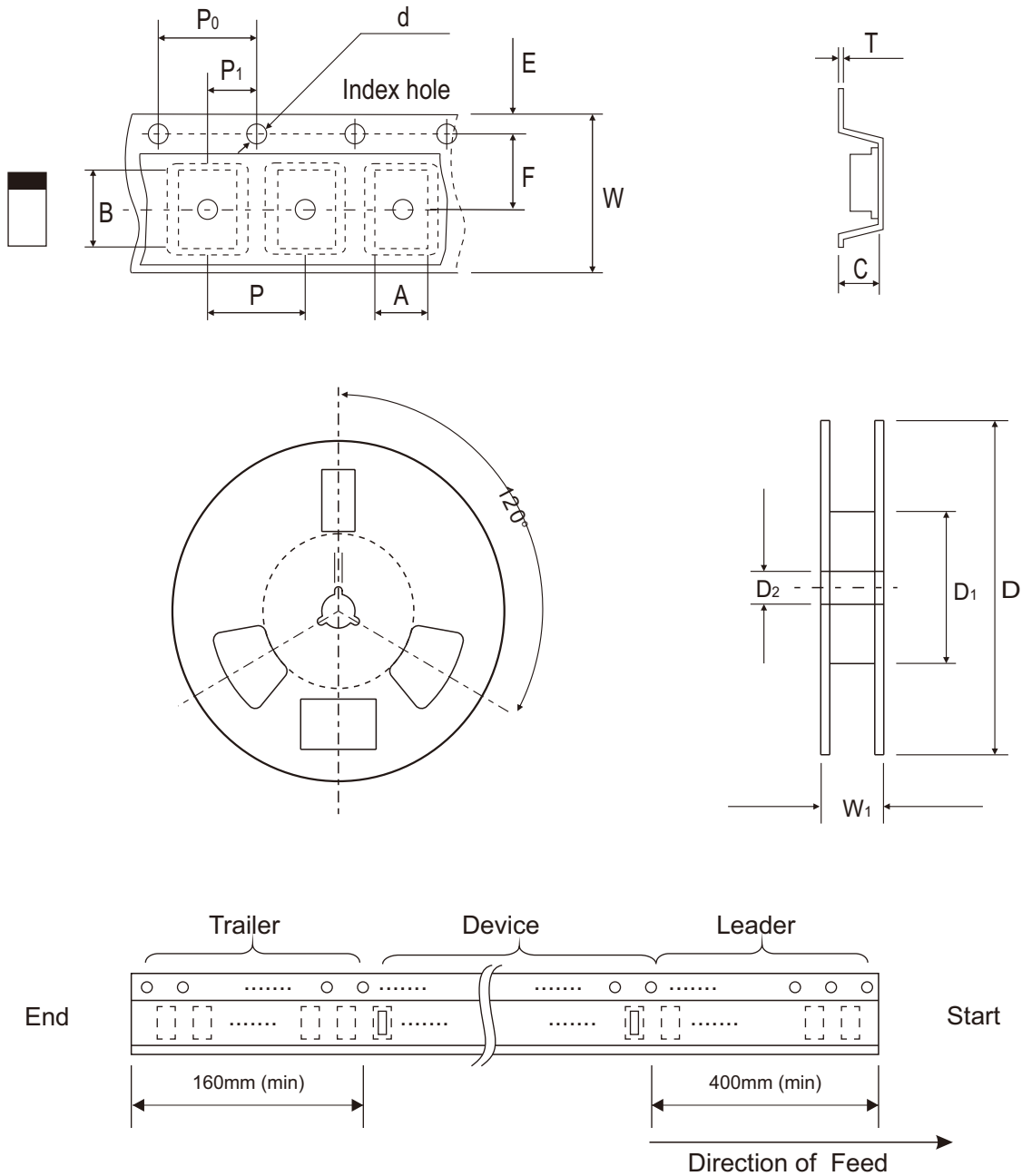


Fig.4 - Current Derating Curve



## Reel Taping Specification



0503 (SOD-723F)	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	0.92 ± 0.05	1.50 ± 0.05	0.87 ± 0.05	1.50 +0.10 -0	178.00 ± 1.00	60.00 ± 0.50	13.50 ± 0.20
	(inch)	0.046 ± 0.004	0.075 ± 0.004	0.037 ± 0.004	0.059 +0.004 -0	7.008 ± 0.039	2.362 ± 0.020	0.531 ± 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 ± 0.10	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.23 +0.02 -0.05	8.00 ± 0.20	12.00 +0.50 -0
	(inch)	0.069 ± 0.004	0.138 ± 0.004	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.004	0.009 +0.001 -0.002	0.315 ± 0.008	0.472 +0.020 -0

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

REV:A

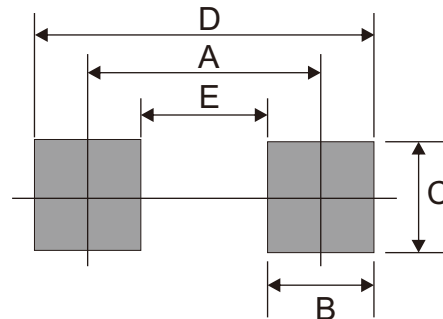
## Marking Code

Part Number	Marking Code
CDSER4448-HF	S5



## 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