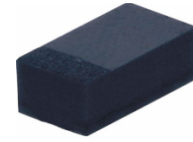


## CDSUR4448-HF

**Io = 125 mA**  
**VR = 80 Volts**  
**RoHS Device**  
**Halogen Free**



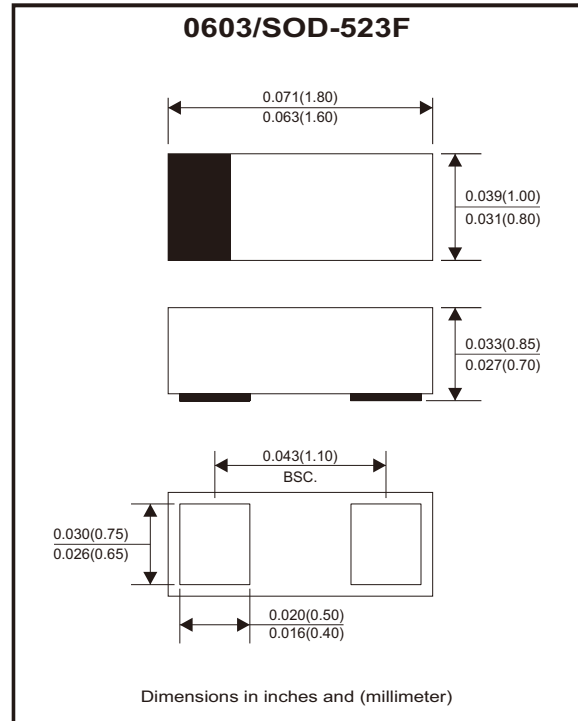
### Features

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

### Mechanical data

- Case: 0603/SOD-523F standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Polarity: Indicated by cathode band.
- Mounting position: Any.
- Weight: 0.003 grams(approx.).

### Circuit Diagram



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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Repetitive peak reverse voltage		VRRM			100	V
Reverse voltage		VR			80	V
Average forward rectified current		Io			125	mA
Forward current, surge peak	t = 1 μs t = 8.3ms	IFSM			2 1	A
Power dissipation		PD			200	mW
Operating temperature range		Tj	-40		+125	°C
Storage temperature range		TSTG	-40		+125	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	IF = 5 mA IF = 100 mA	VF	0.62		0.72 1	V
Reverse current	VR = 20 V VR = 80 V	IR			25 100	nA
Capacitance between terminals	f = 1MHz, and 0.5 VDC reverse voltage	CT			9	pF
Reverse recovery time	IF = IR = 10mA, Irr = 0.1 X IR, RL = 100ohm	Trr			9	nS

## Rating and Characteristic Curves (CDSUR4448-HF)

Fig.1 - Forward Characteristics

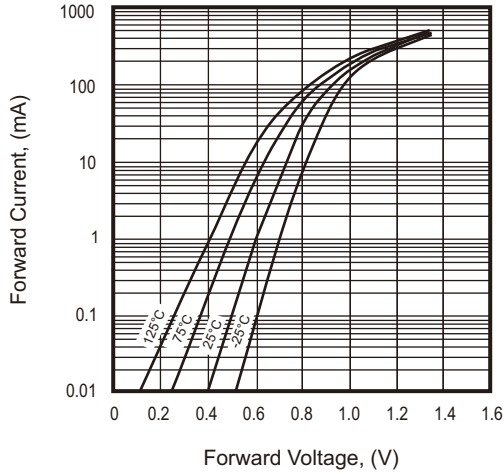


Fig.2 - Reverse Characteristics

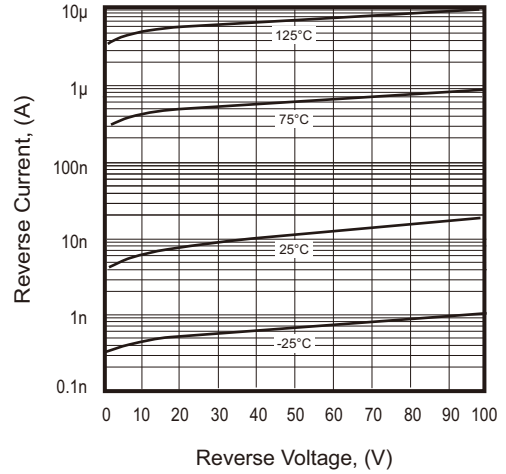


Fig.3 - Capacitance Between Terminals Characteristics

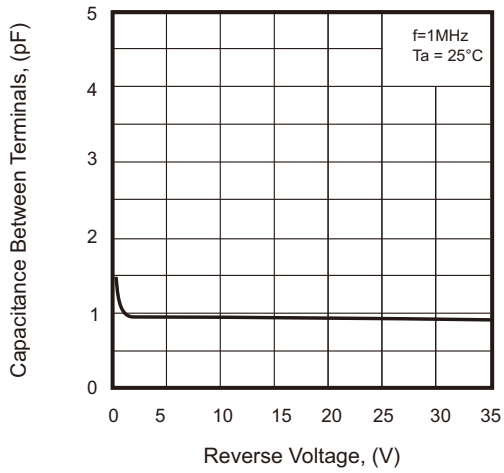
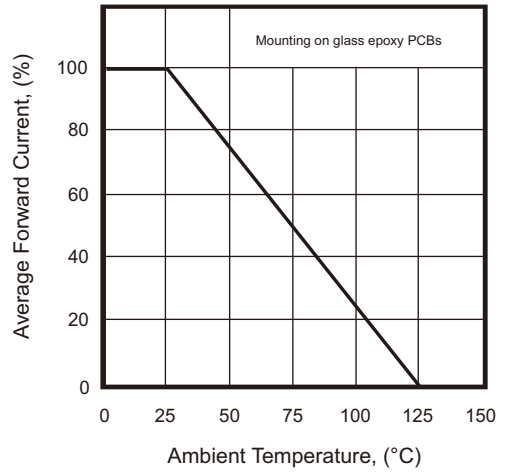
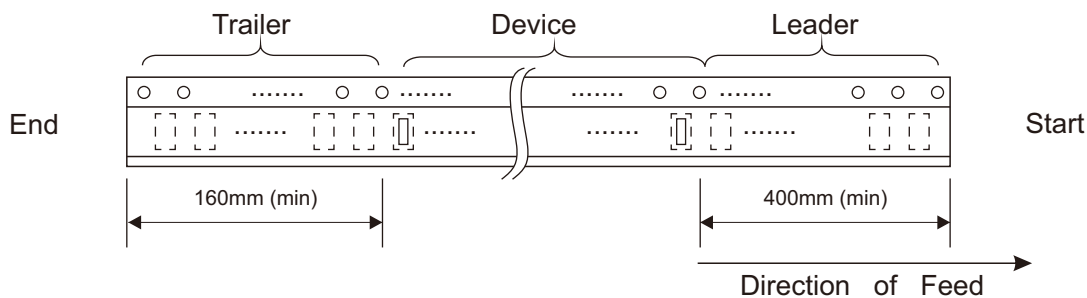
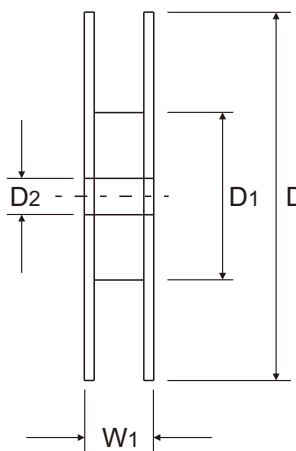
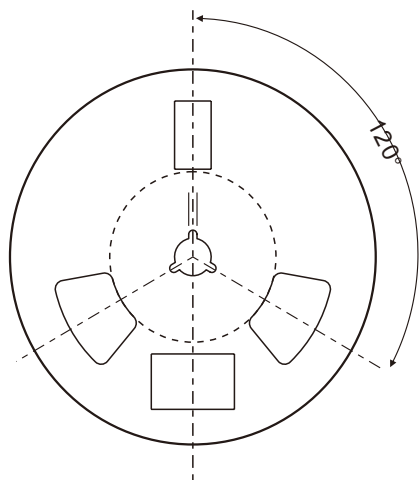
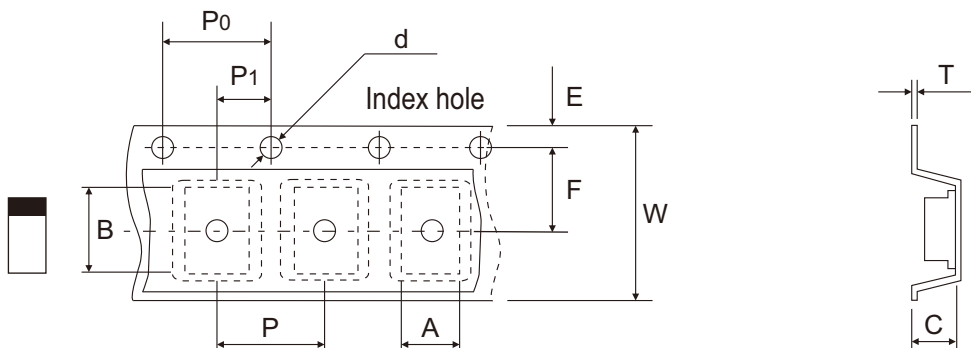


Fig.4 - Current Derating Curve



## Reel Taping Specification



0603 (SOD-523F)	SYMBOL	A	B	C	d	D	D1	D2
	(mm)	1.16 ± 0.10	1.90 ± 0.10	0.95 ± 0.10	1.50 + 0.10 - 0.00	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 - 0.000	7.008 ± 0.039	2.362 ± 0.020	0.531 ± 0.008

0603 (SOD-523F)	SYMBOL	E	F	P	P0	P1	T	W	W1
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.05	0.22 ± 0.03	8.00 ± 0.20	12.00 + 0.50 - 0.00
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.004	0.079 ± 0.002	0.009 ± 0.001	0.315 ± 0.008	0.472 + 0.020 - 0.000

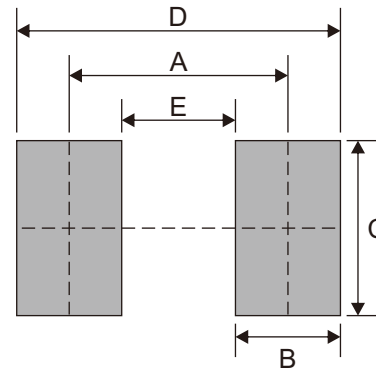
## Marking Code

Part Number	Marking Code
CDSUR4448-HF	S5



## Suggested P.C.B. PAD Layout

SIZE	0603/SOD-523F	
	(mm)	(inch)
A	1.25	0.049
B	0.60	0.024
C	1.00	0.039
D	1.85	0.073
E	0.65	0.026



## Standard Packaging

Case Type	REEL PACK	
	REEL (pcs)	Reel Size (inch)
0603/SOD-523F	4,000	7