

## CDSU400B

### RoHS Device

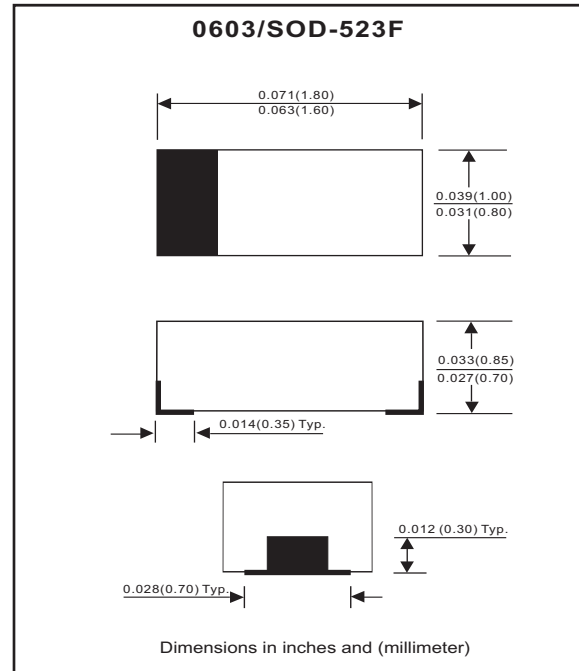


### Features

- High Speed
- Designed for mounting on small surface.
- Extremely thin/leadless package.
- Low leakage current.
- High mounting capability, strong surge withstand, high reliability.

### Mechanical data

- Case: 0603/SOD-523F standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Marking Code: Cathode band & S4
- Mounting position: Any.
- Weight: 0.003 gram (approx.)



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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Repetitive peak reverse voltage		V <sub>RRM</sub>			90	V
Reverse voltage		V <sub>R</sub>			80	V
Average forward current		I <sub>o</sub>			100	mA
Forward current , surge peak	8.3 ms single half sine-wave superimposed on rate load ( JEDEC method )	I <sub>FSM</sub>		1000		mA
Repetitive peak forward current		I <sub>FRM</sub>			225	mA
Power dissipation		P <sub>D</sub>			150	mW
Thermal resistance junction to ambient air		R <sub>θJA</sub>			667	°C/W
Storage temperature		T <sub>STG</sub>	-55		+125	°C
Junction temperature		T <sub>j</sub>			+125	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse breakdown voltage	I <sub>R</sub> = 50 uA	V <sub>BR</sub>	80			V
Forward voltage	I <sub>F</sub> = 100 mA	V <sub>F</sub>			1.0	V
Reverse current	V <sub>R</sub> = 80 V	I <sub>R</sub>			0.1	uA
Capacitance between terminals	f = 1MHz, and 0.5VDC reverse voltage	C <sub>T</sub>			3	pF
Reverse recovery time	V <sub>R</sub> = 6V, I <sub>F</sub> = 10 mA, R <sub>L</sub> =50 ohms	T <sub>rr</sub>			4	nS

## RATING AND CHARACTERISTIC CURVES (CDSU400B )

Fig. 1 - Forward characteristics

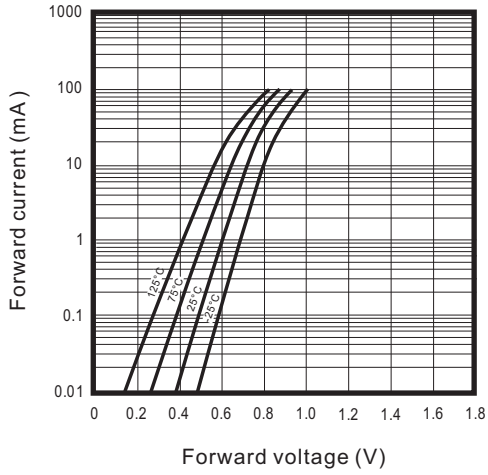


Fig. 2 - Reverse characteristics

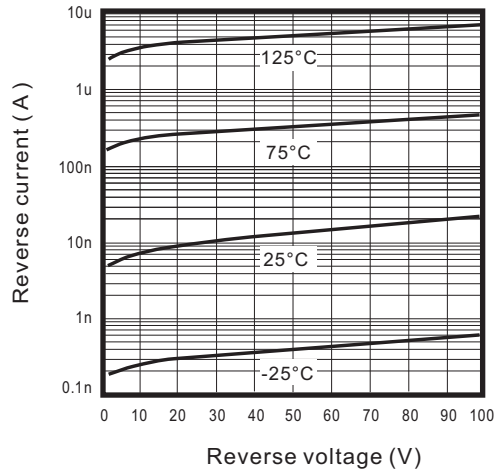


Fig. 3 - Capacitance between terminals characteristics

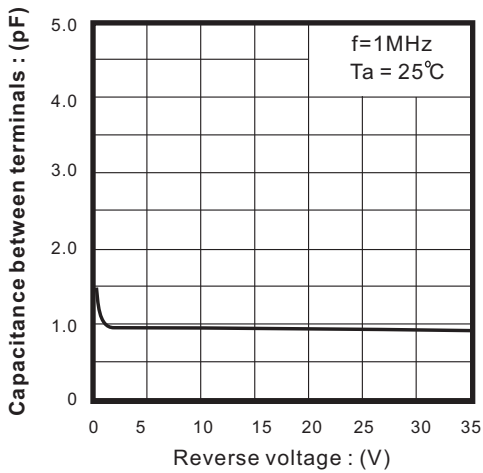
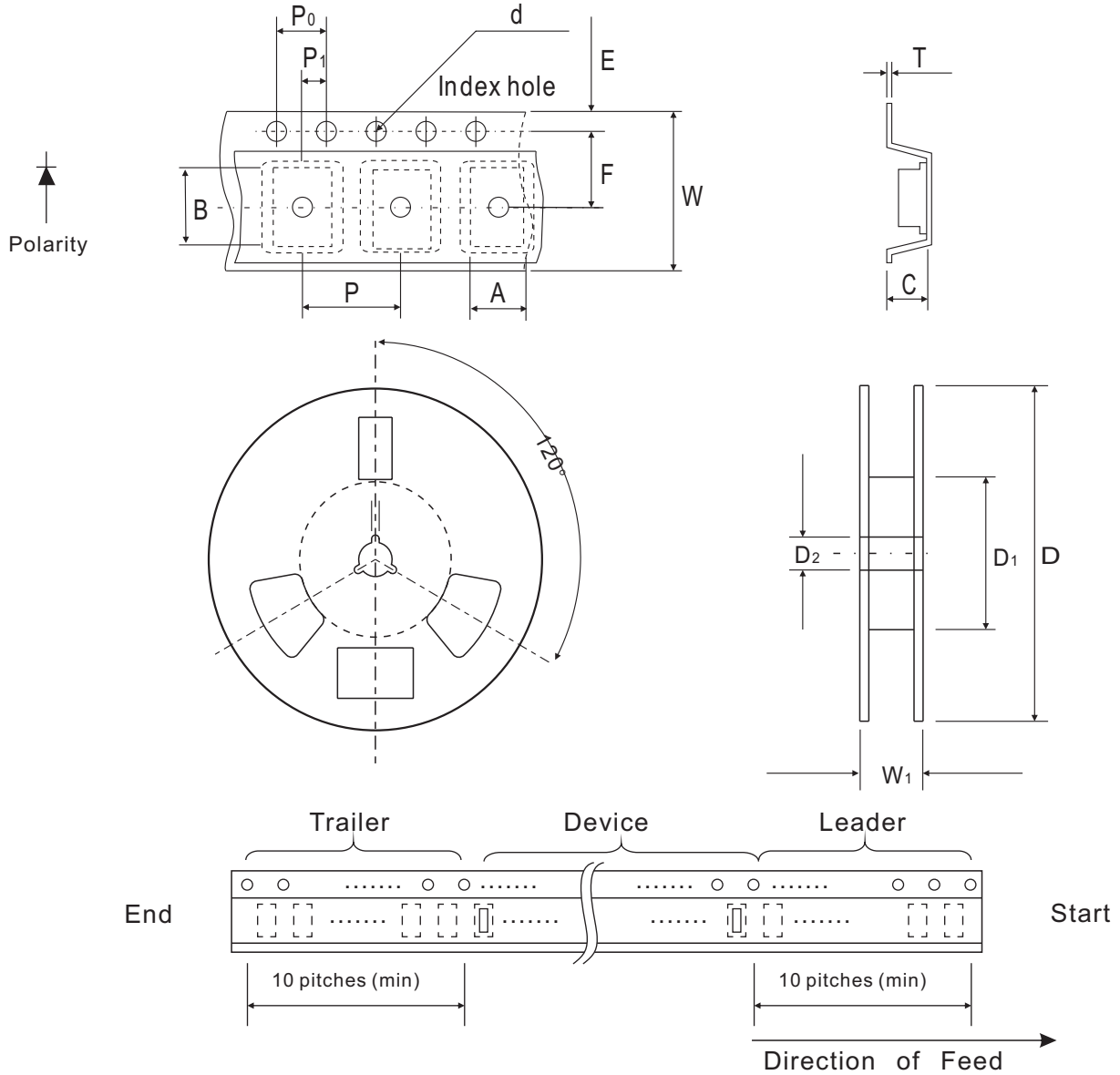


Fig. 4 - Current derating curve



## Reel Taping Specification



0603 (SOD-523F)	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	1.00 ± 0.10	1.85 ± 0.10	1.00 ± 0.10	1.55 ± 0.05	178 ± 1	60.0 MIN.	13.0 ± 0.20
	(inch)	0.039 ± 0.004	0.073 ± 0.004	0.039 ± 0.004	0.061 ± 0.002	7.008 ± 0.04	2.362 MIN.	0.512 ± 0.008

0603 (SOD-523F)	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	0.23 ± 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 ± 0.004	0.009 ± 0.002	0.315 ± 0.008	0.531 MAX.

## Marking Code

Part Number	Marking Code
CDSU400B	S4



## Suggested PAD Layout

SIZE	0603/SOD-523F	
	(mm)	(inch)
A	1.70	0.067
B	0.60	0.024
C	0.80	0.031
D	2.30	0.091
E	1.10	0.043



## Standard Package

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
0603/SOD-523F	4000	7

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