

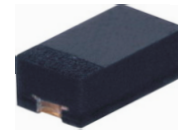
# SMD Switching Diode



SMD Diodes Specialist

## CDSU400B (RoHS Device)

High Speed

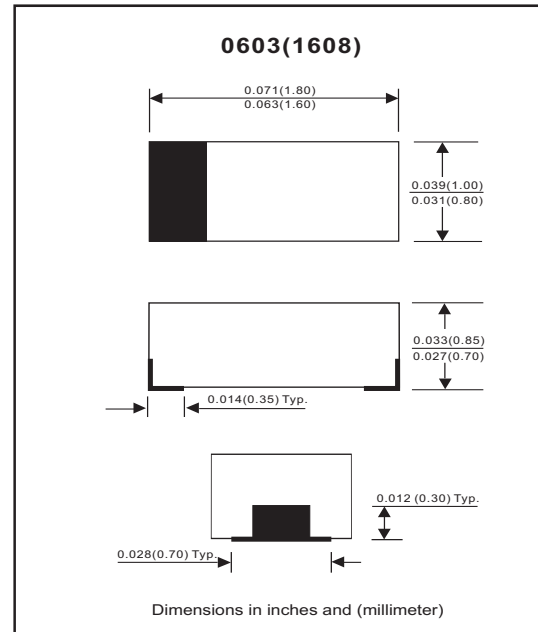


### Features

- 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 (1608) 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		VRRM			90	V
Reverse voltage		VR			80	V
Average forward current		Io			100	mA
Forward current , surge peak	8.3 ms single half sine-wave superimposed on rate load ( JEDEC method )	IFSM		1000		mA
Repetitive peak forward current		IFRM			225	mA
Power dissipation		PD			150	mW
Thermal resistance junction to ambient air		RθJA			667	°C/W
Storage temperature		TSTG	-55		+125	°C
Junction temperature		Tj			+125	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse breakdown voltage	IR = 50 uA	VBR	80			V
Forward voltage	IF = 100 mA	VF			1.0	V
Reverse current	VR = 80 V	IR			0.1	uA
Capacitance between terminals	f = 1MHz, and 0.5VDC reverse voltage	CT			3	pF
Reverse recovery time	VR = 6V, IF = 10 mA, RL =50 ohms	Trr			4	nS

## RATING AND CHARACTERISTIC CURVES (CDSU400B)

Fig. 1 - Forward characteristics

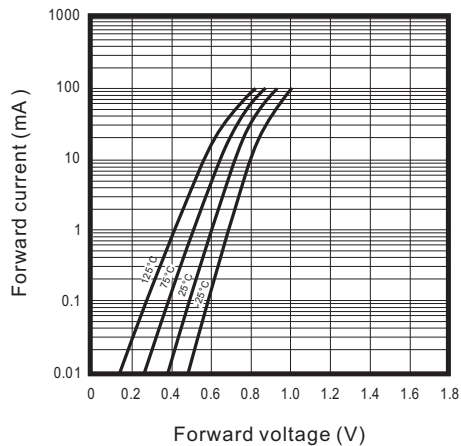


Fig. 2 - Reverse characteristics

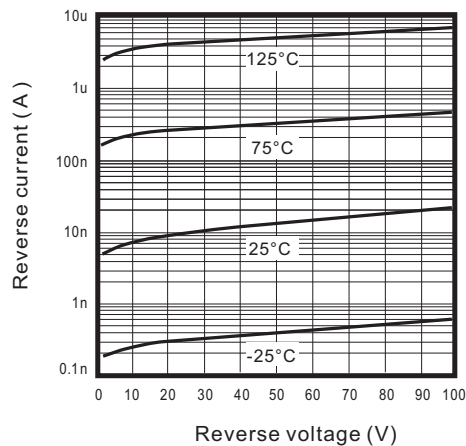


Fig. 3 - Capacitance between terminals characteristics

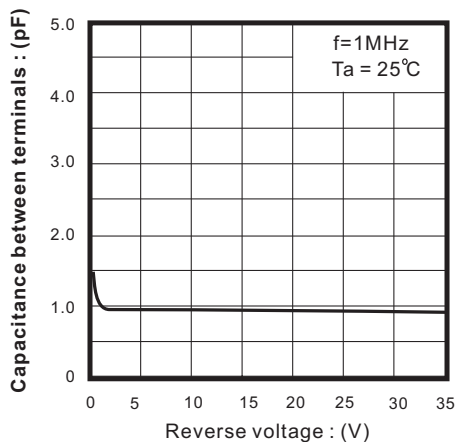
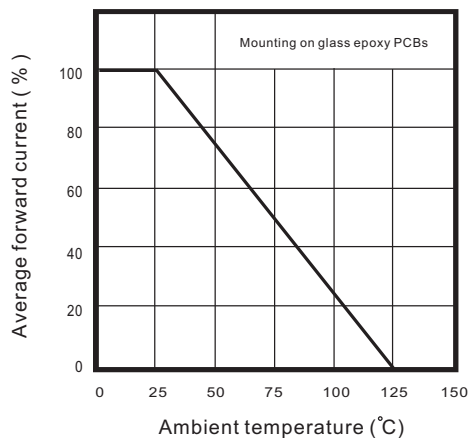
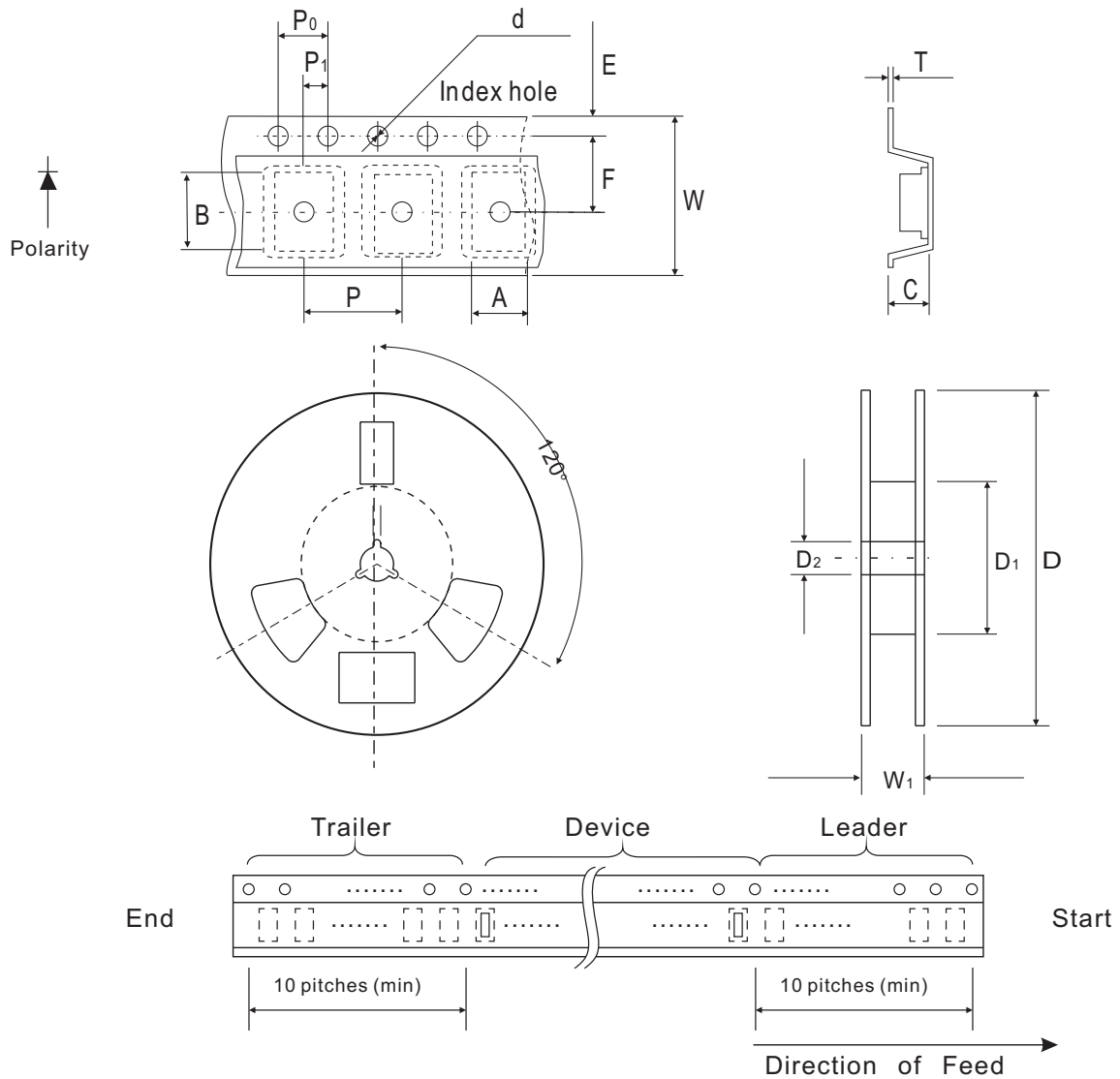


Fig. 4 - Current derating curve



## Reel Taping Specification



U/0603	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

U/0603	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.

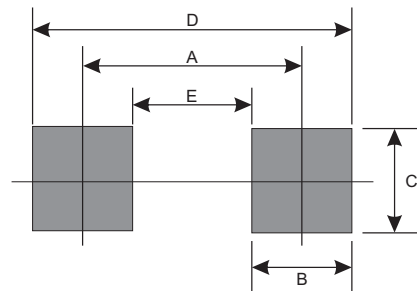
## Marking Code

Park Number	Marking Code
CDSU400B	S4



## Suggested PAD Layout

SIZE	U/0603	
	(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)
U/0603	4000	7