



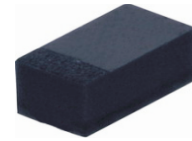
**THE DATASHEET OF  
CDBURT0530LL-HF**



## CDBURT0530LL-HF

Forward Current = 500 mA  
Reverse Voltage = 20 Volts

RoHS Device  
Halogen Free

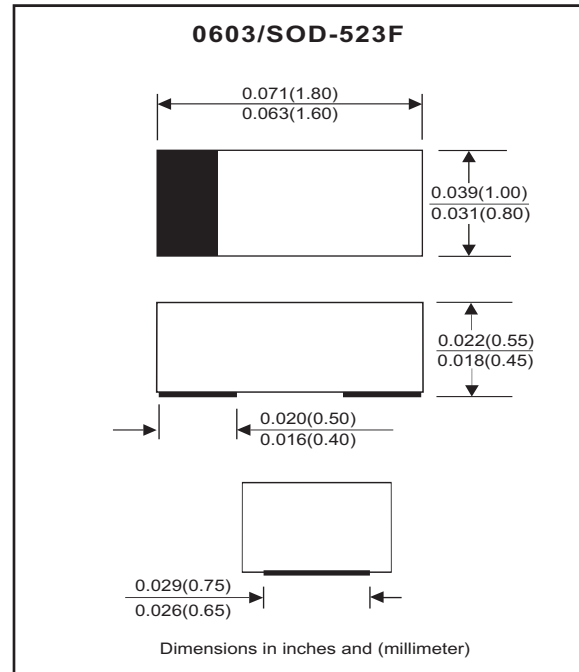


### Features

- Ultra low forward voltage.
- Designed for mounting on small surface.
- Extremely thin / leadless package.
- Low profile package is 30% thinner than standards 0603
- Majority carrier conduction.
- ESD Rating: -Human Body Model: Class 3B  
-Machine Model: Class C

### 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.
- Marking code: BT,BS
- Mounting Position: Any
- Weight: 0.0019 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 <sub>RRM</sub>			30	V
Reverse voltage		V <sub>R</sub>			20	V
Average forward current		I <sub>O</sub>			500	mA
Forward current, surge peak	8.3ms single half sine-wave superimposed on rate load(JEDEC method)	I <sub>FSM</sub>			5	A
Typical thermal resistance		R <sub>θJA</sub>		260		°C/W
Junction temperature range		T <sub>j</sub>	-55		+125	°C
Storage temperature range		T <sub>STG</sub>	-55		+125	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	I <sub>F</sub> = 100 mA I <sub>F</sub> = 500 mA	V <sub>F</sub>			0.32 0.46	V
Reverse Current	V <sub>R</sub> = 20 V	I <sub>R</sub>		30	100	uA
Capacitance	V <sub>R</sub> = 1 V, f=1MHz	C		30		pF

## RATING AND CHARACTERISTIC CURVES (CDBURT0530LL-HF)

Fig.1 - Forward Current vs. Forward Voltage

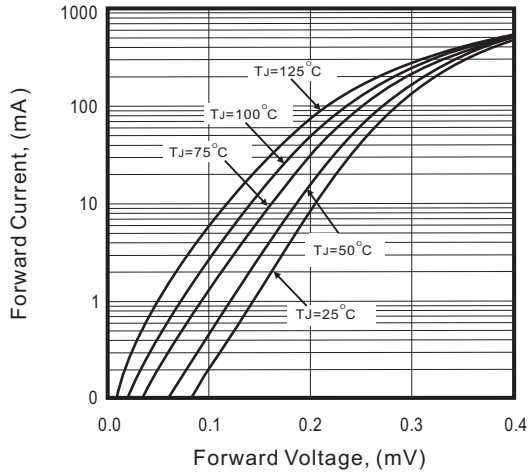


Fig.2 - Reverse Current vs. Reverse Voltage

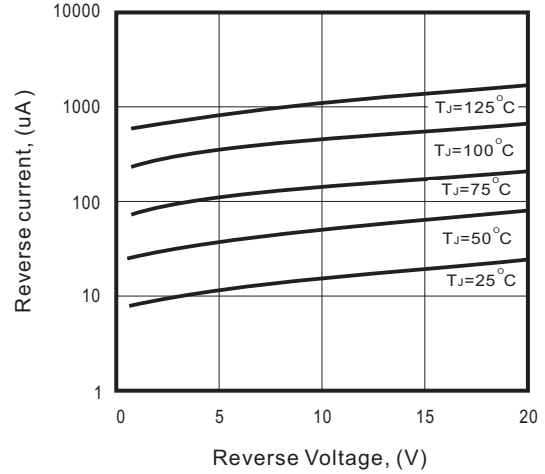


Fig.3 - Current Derating Curve

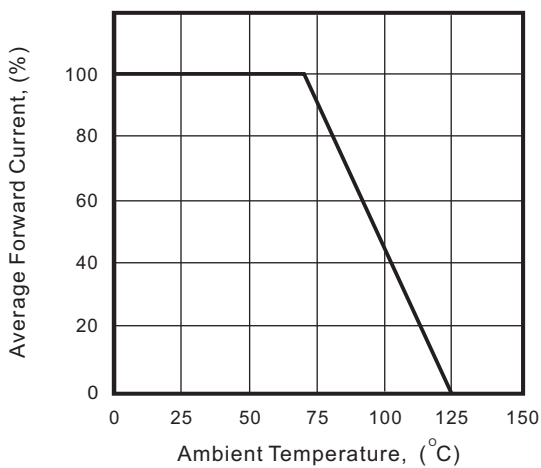
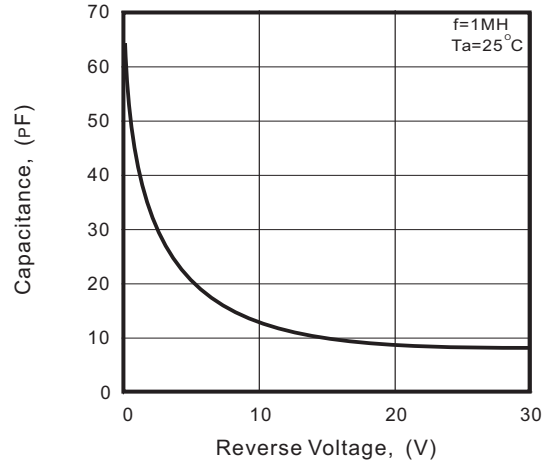
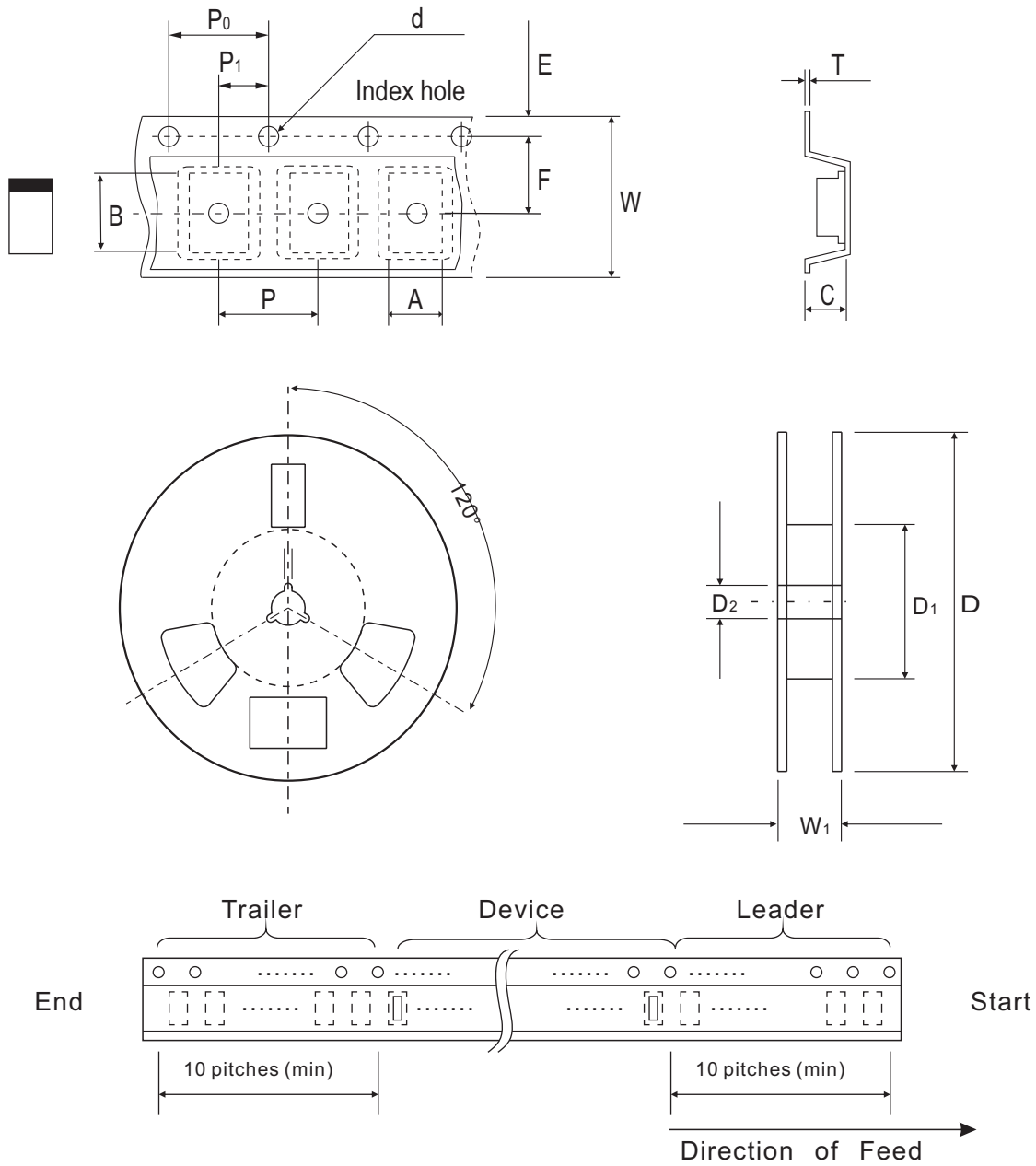


Fig.4 - Capacitance Between Terminals Characteristics



## Reel Taping Specification



0603 (SOD-523F)	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(mm)	1.05 ± 0.05	1.96 ± 0.05	0.57 ± 0.05	1.50 + 0.10	178 ± 1	60.0 MIN.	13.0 ± 0.20
	(inch)	0.041 ± 0.002	0.077 ± 0.002	0.022 ± 0.002	0.059 ± 0.004	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 ± 0.05	2.00 ± 0.05	0.20 ± 0.03	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	0.008 ± 0.001	0.315 ± 0.008	0.531 MAX.

## Marking Code

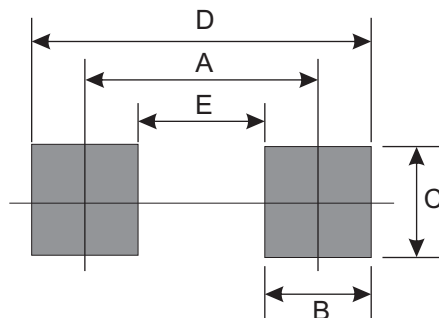
Part Number	Marking Code	
CDBURT0530LL-HF	BT	BS



xx = Product type marking code

## Suggested 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	Qty Per Reel	Reel Size
	(Pcs)	(inch)
0603/SOD-523F	4,000	7

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