

CDBUC0530LL-HF

Forward Current = 500 mA

Reverse Voltage = 20 Volts

RoHS Device

Halogen Free



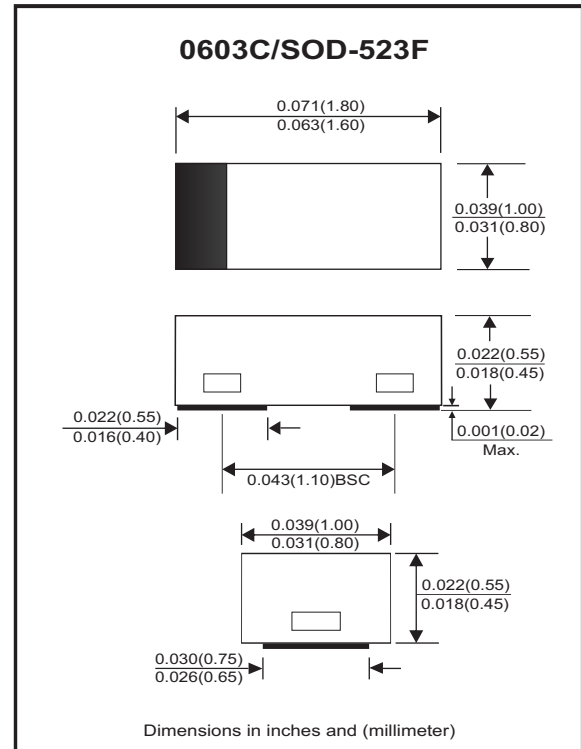
Features

- Ultra low forward voltage.
- Designed for mounting on small surface.
- Extremely thin package.
- Majority carrier conduction.
- ESD Rating: -Human Body Model: Class 3B
-Machine Model: Class C

Mechanical data

- Case: 0603C/SOD-523F standard package, molded plastic.
- Terminals: Matte tin 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			30	V
Reverse voltage		VR			20	V
Average forward current		IO			500	mA
Peak forward Current		IFM			500	mA
Forward current,surge peak	8.3ms single half sine-wave superimposed on rate load(JEDEC method)	IFSM			5	A
Typical thermal resistance		RθJA		150		°C/W
Junction temperature		Tj	-55		+125	°C
Storage temperature		TSTG	-55		+125	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	IF = 100 mA IF = 500 mA	VF			0.32 0.46	V
Reverse current	VR = 20 V	IR		30	100	uA
Capacitance	VR = 1 V, f=1MHz	C		30		pF

RATING AND CHARACTERISTIC CURVES (CDBUC0530LL-HF)

Fig.1 - Forward Characteristics

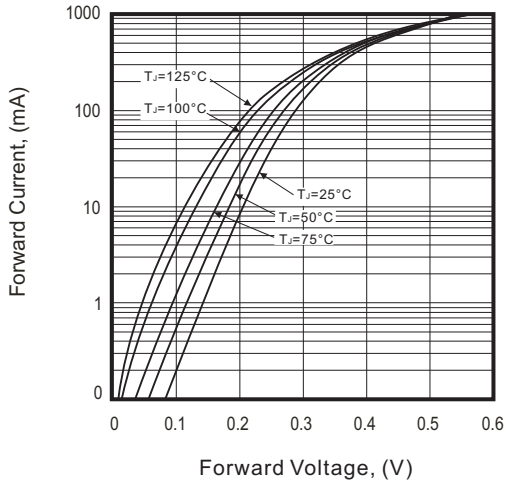


Fig.2 - Reverse Current vs. Reverse Voltage

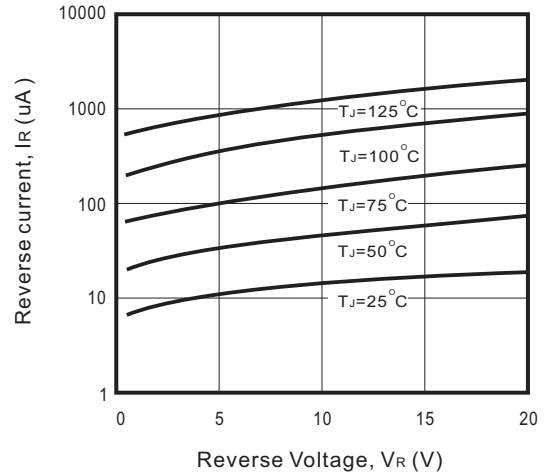


Fig.3 - Current Derating Curve

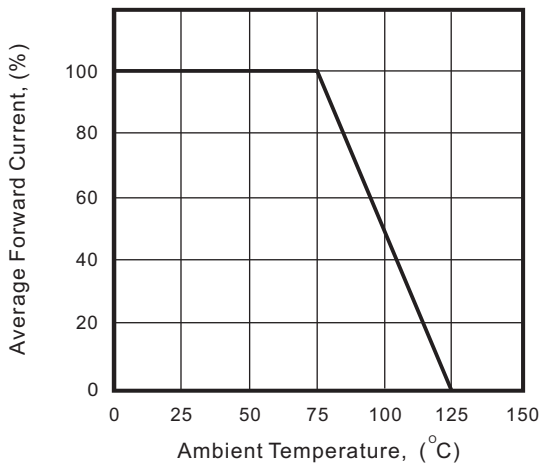
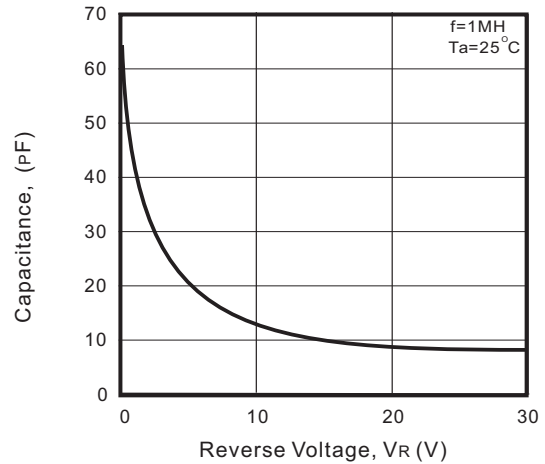
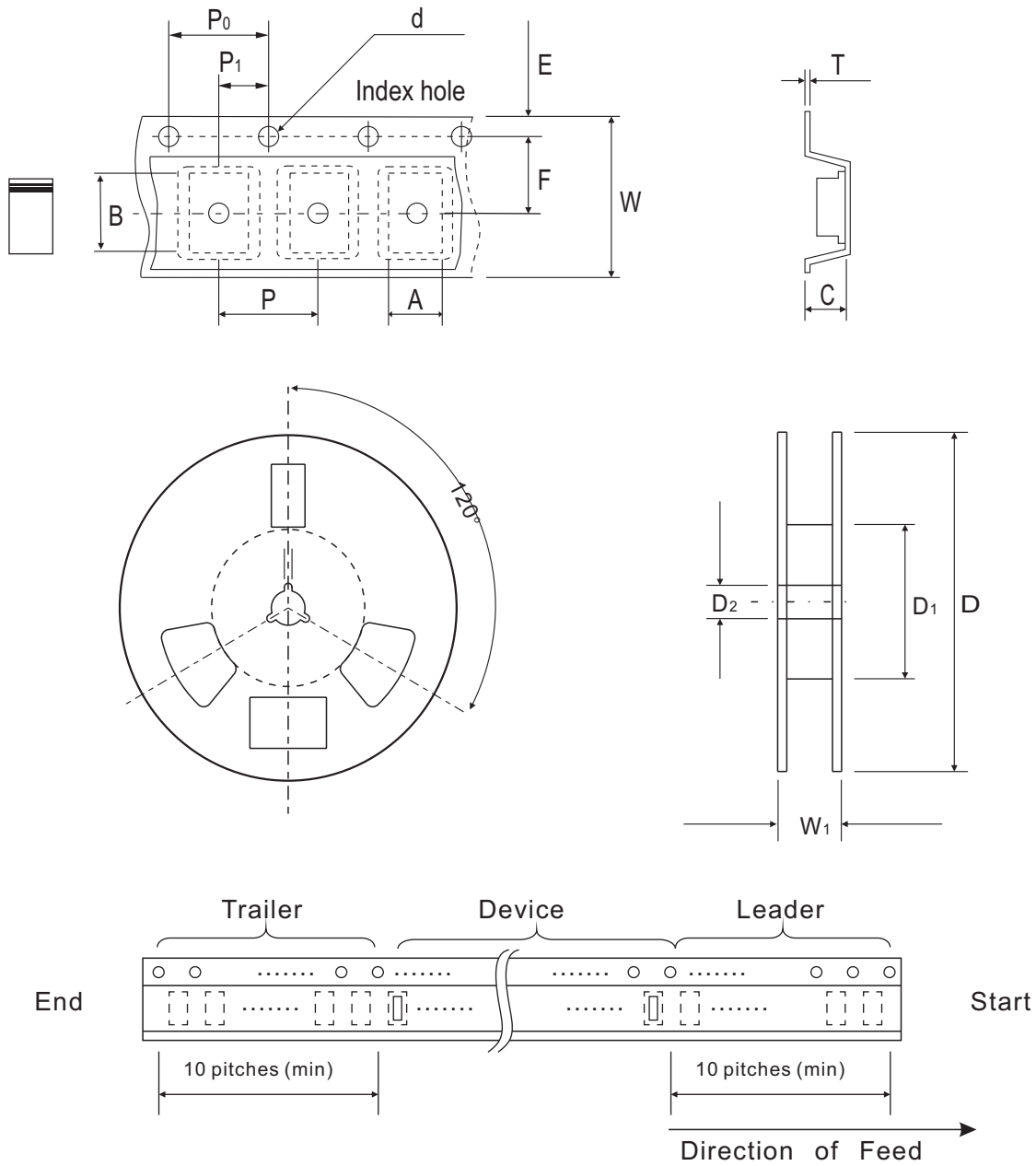


Fig.4 - Typ. Capacitance Between Terminals Characteristics



Reel Taping Specification



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

0603C/ SOD-523F	SYMBOL	E	F	P	P ₀	P ₁	T	W	W ₁
	(mm)	1.75 ± 0.10	3.50 ± 0.05	4.00 ± 0.10	4.00 ± 0.10	2.00 ± 0.10	0.23 ± 0.05	8.00 ± 0.20	13.50 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

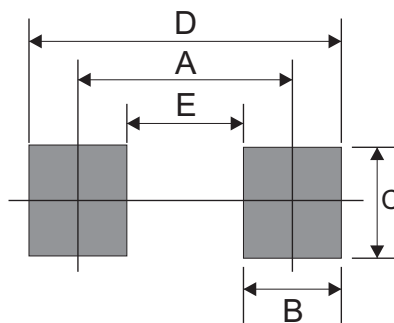
Part Number	Marking Code	
CDBUC0530LL-HF	BT	BS



xx = Product type marking code

Suggested PAD Layout

SIZE	0603C/SOD-523F	
	(mm)	(inch)
A	1.10	0.043
B	0.60	0.024
C	0.80	0.031
D	1.70	0.067
E	0.50	0.020



Standard Packaging

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