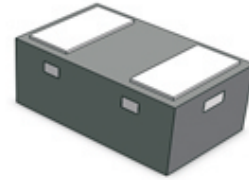


CDSUC101A-HF

RoHS Device

Halogen Free



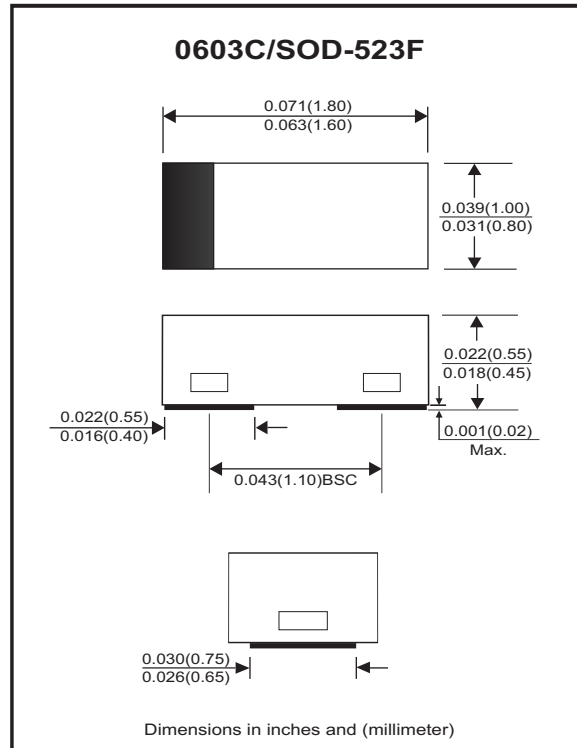
Features

- High Speed.
- Designed for mounting on small surface.
- Extremely thin/leadless package.
- Low leakage current (<50nA).
- High mounting capability, strong surge withstand, high reliability.

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		V _{RRM}			90	V
Reverse voltage		V _R			80	V
Average forward current		I _O			100	mA
Peak forward surge current	8.3 ms single half sine-wave superimposed on rate load (JEDEC method)	I _{FSM}		1000		mA
Repetitive peak forward current		I _{FRM}			225	mA
Power dissipation		P _D			150	mW
Operating temperature range		T _j	-40		+125	°C
Storage temperature range		T _{STG}	-40		+125	°C

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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	I _F = 100 mA DC	V _F			1.0	V
Reverse current	V _R = 75V	I _R			50	nA
Capacitance between terminals	f = 1MHz, and 0.5V DC reverse voltage	C _T		3		pF
Reverse recovery time	V _R = 6V, I _F = 10mA, R _L = 50 ohms	T _{rr}		4		nS

RATING AND CHARACTERISTIC CURVES (CDSUC101A-HF)

Fig.1 - Forward Characteristics

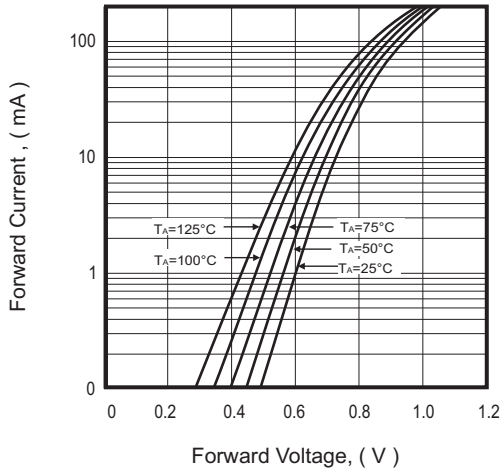


Fig.2 - Reverse Characteristics

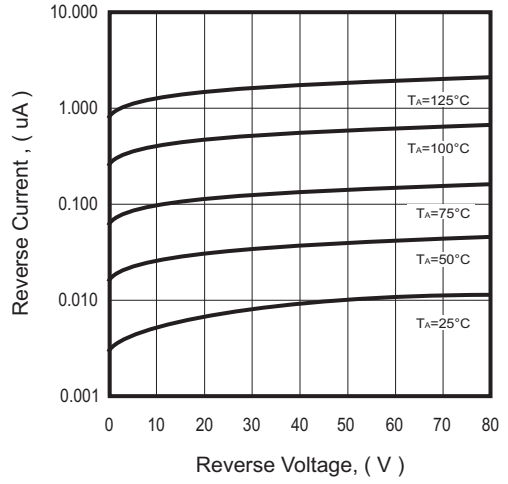


Fig.3 - Capacitance Between Terminals Characteristics

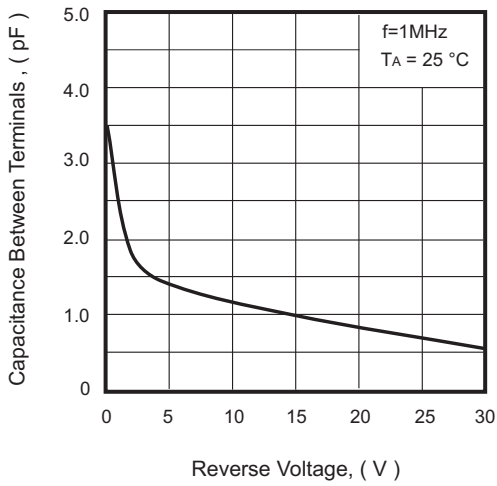
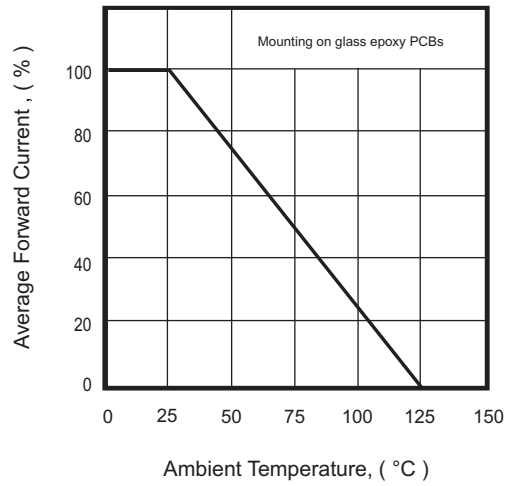
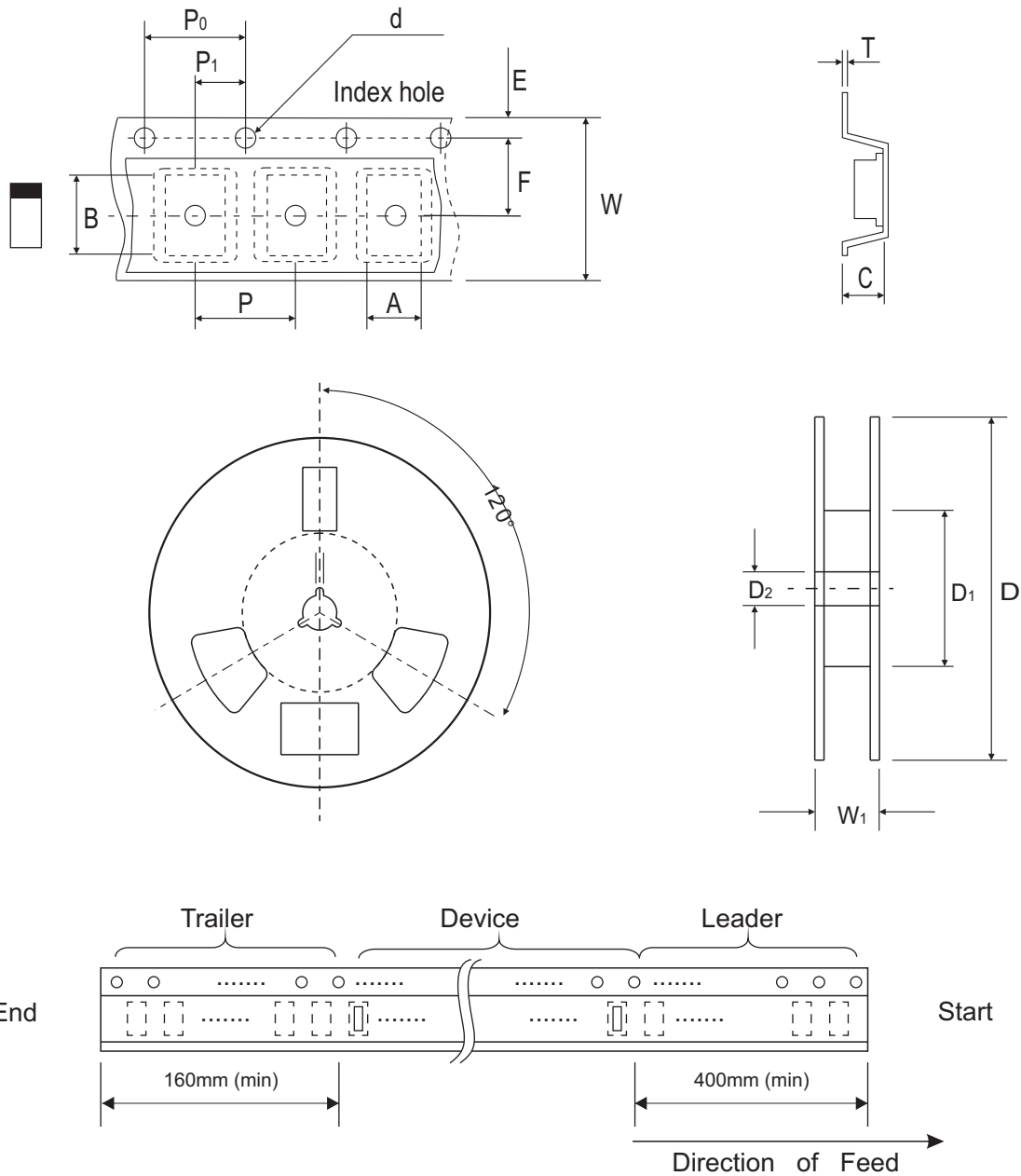


Fig.4 - Current Derating Curve



Reel Taping Specification



0603C/ SOD-523F	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(mm)	1.05 ± 0.05	1.96 ± 0.05	0.57 ± 0.05	1.50 ^{+0.10} ₋₀	178.00 ± 1.00	60.00 ± 0.50	13.50 ± 0.20
	(inch)	0.041 ± 0.002	0.077 ± 0.002	0.022 ± 0.002	0.059 ^{+0.004} ₋₀	7.008 ± 0.039	2.362 ± 0.020	0.531 ± 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 ± 0.05	2.00 ± 0.05	0.20 ± 0.03	8.00 ± 0.20	12.00 ^{+0.50} ₋₀
	(inch)	0.069 ± 0.004	0.138 ± 0.002	0.157 ± 0.004	0.157 ± 0.002	0.079 ± 0.002	0.008 ± 0.001	0.315 ± 0.008	0.472 ^{+0.020} ₋₀

Marking Code

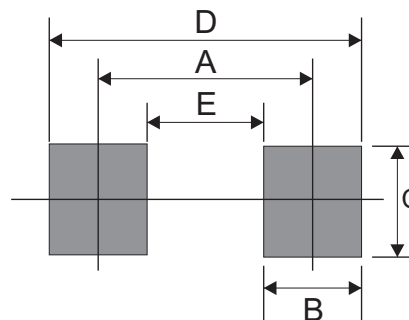
Part Number	Marking Code
CDSUC101A-HF	S2



xx = Product type marking code

Suggested PAD Layout

SIZE	0603C/SOD-523F	
	(mm)	(inch)
A	1.10	0.043
B	0.70	0.028
C	1.00	0.039
D	1.80	0.071
E	0.40	0.016



Standard Packaging

Case Type	Qty Per Reel	Reel Size
	(Pcs)	(inch)
0603C/SOD-523F	4,000	7