



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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CDBU0320/0330/0340

$I_o = 350 \text{ mA}$

$V_R = 20 \text{ to } 40 \text{ Volts}$

RoHS Device

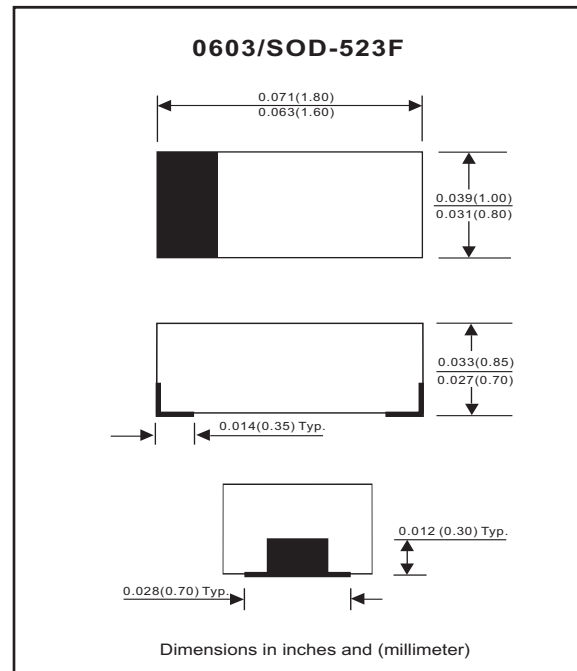


Features

- Low forward voltage.
- Designed for mounting on small surface.
- Extremely thin / leadless package.
- Majority carrier conduction.

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.
- Mounting position: Any.
- Weight: 0.003 gram(approx.).



Maximum Rating (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	CDBU0320	CDBU0330	CDBU0340	Unit
Repetitive Peak reverse voltage Reverse voltage	V_{RRM} V_R	20	30	40	V
RMS reverse voltage	$V_{R(RMS)}$	14	21	28	V
Average forward rectified current	I_o	350			mA
Forward current, surge peak 8.3 ms single half sine-wave	I_{FSM}	1.5			A
Power dissipation	P_D	150			mW
Thermal resistance junction to ambient air	$R_{\theta JA}$	667			$^\circ\text{C}/\text{W}$
Storage temperature	T_{STG}	-65 to +125			$^\circ\text{C}$
Junction temperature	T_j	+125			$^\circ\text{C}$

Electrical Characteristics (at $T_A=25^\circ\text{C}$ unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Reverse current CDBU0320 CDBU0330 CDBU0340	$V_R = 20\text{V}$ $V_R = 30\text{V}$ $V_R = 40\text{V}$	I_R			5 5 5	μA
Forward voltage	$I_F = 20\text{mA}$ $I_F = 200\text{mA}$	V_F			0.37 0.60	V
Capacitance between terminals	$f = 1 \text{ MHz}$, and 0 VDC reverse voltage	C_T		50		pF
Reverse recovery time	$I_F=I_R=10\text{mA}$, $I_{rr}=0.1 \times I_R$, $R_L=100 \text{ ohm}$	T_{rr}		6.4		nS

Company reserves the right to improve product design, functions and reliability without notice.

REV:C

RATING AND CHARACTERISTIC CURVES (CDBU0320/0330/0340)

Fig. 1 - Forward characteristics

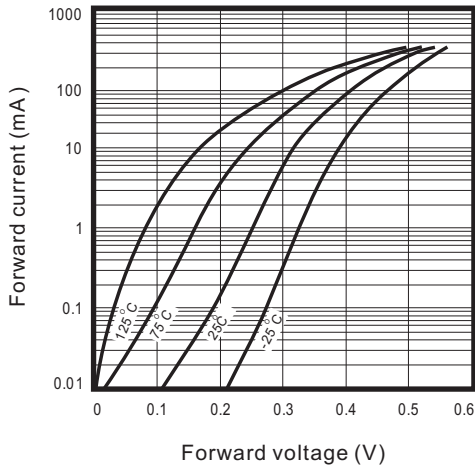


Fig. 2 - Reverse characteristics

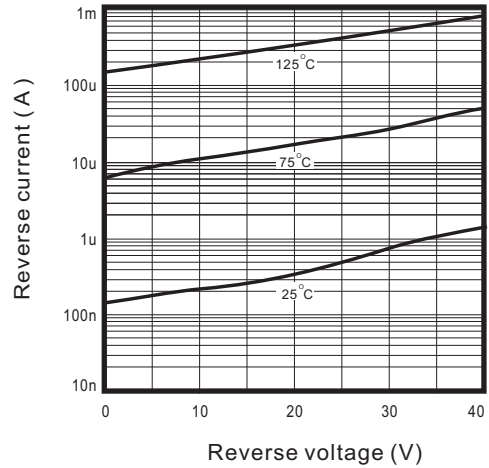


Fig.3 - Capacitance between terminals characteristics

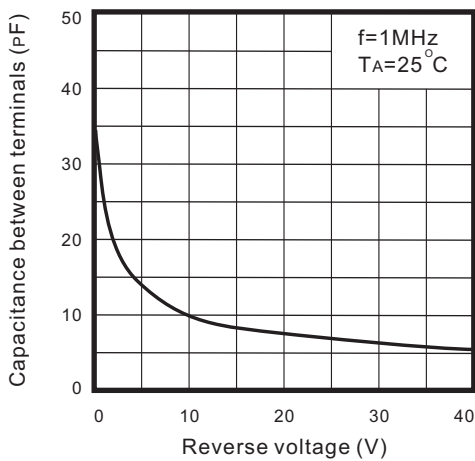
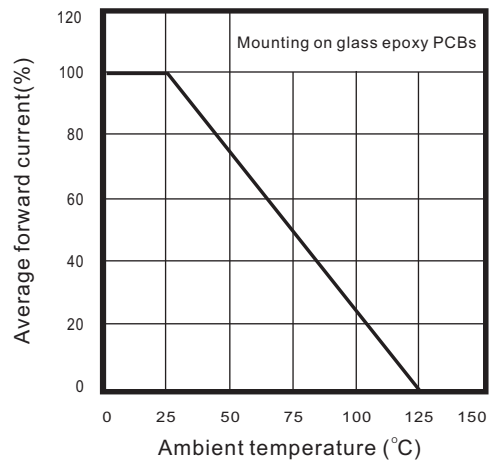
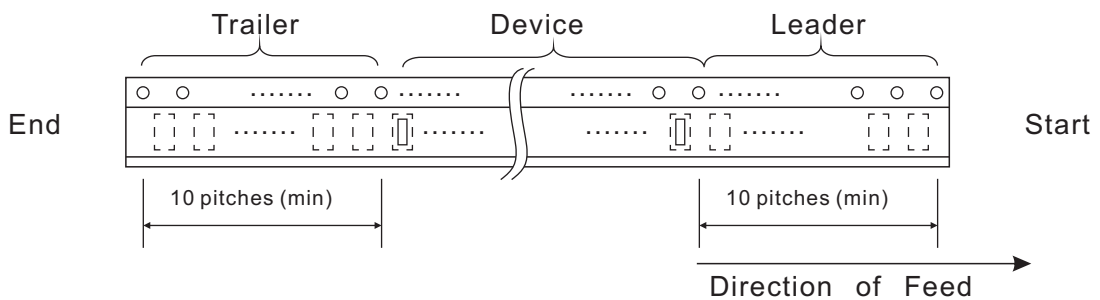
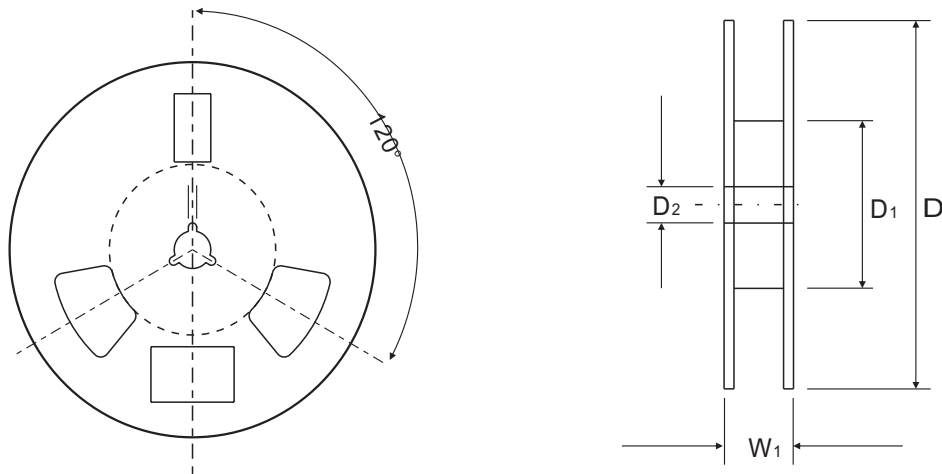
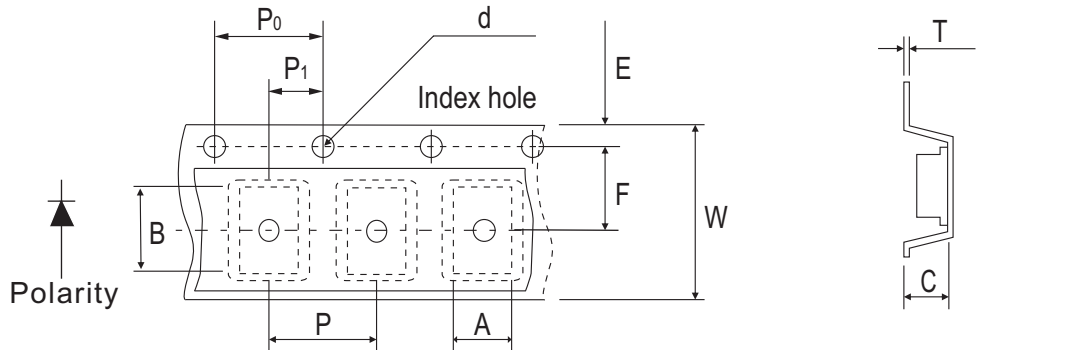


Fig.4 - Current derating curve



Reel Taping Specification



0603 (SOD-523F)	SYMBOL	A	B	C	d	D	D ₁	D ₂
	(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 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 ± 0.05	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

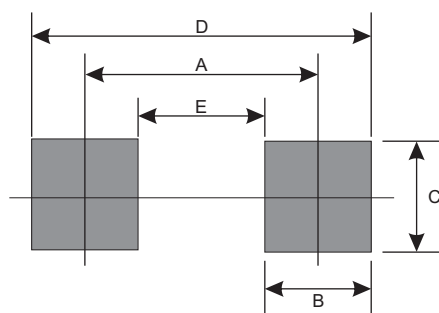
Part Number	Marking Code
CDBU0320	BH
CDBU0330	BJ
CDBU0340	BK



xx = Product type marking code

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