

CDBUR42/43

$I_o = 200 \text{ mA}$
 $V_R = 30 \text{ Volts}$
RoHS Device

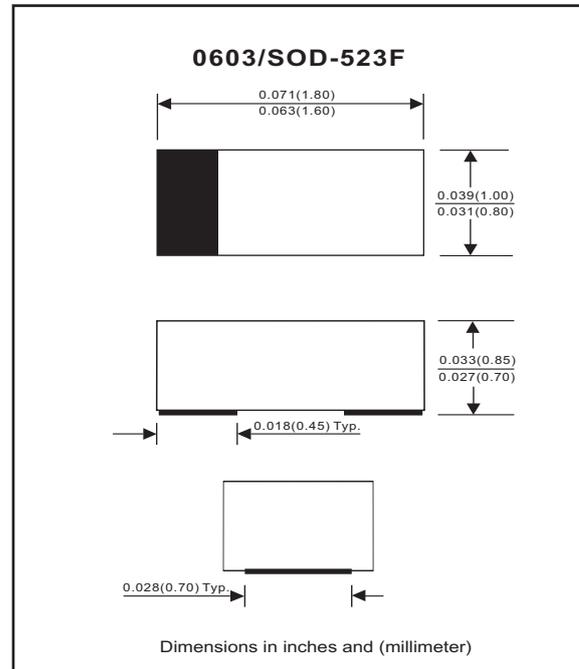


Features

- 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.
- Marking code:
 - CDBUR42 : BD
 - CDBUR43 : BE
- Mounting position: Any
- Weight: 0.003 gram(approx.).



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

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Peak reverse voltage		V_{RM}			30	V
Reverse voltage		V_R			30	V
RMS reverse voltage		$V_{R(RMS)}$			21	V
Average forward rectified current		I_o			200	mA
Repetitive peak forward current		I_{FRM}			0.5	A
Forward current, surge peak	8.3 ms single half sine-wave superimposed on rate load (JEDEC method)	I_{FSM}			4	A
Power dissipation		P_D			150	mW
Thermal resistance junction to ambient air		$R_{\theta JA}$			667	$^\circ\text{C/W}$
Storage temperature		T_{STG}	-55		+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															
Forward voltage	<table style="border: none;"> <tr> <td>CDBUR42/43</td> <td>$I_F = 200\text{mA}$</td> </tr> <tr> <td>CDBUR42</td> <td>$I_F = 10\text{mA}$</td> </tr> <tr> <td>CDBUR42</td> <td>$I_F = 50\text{mA}$</td> </tr> <tr> <td>CDBUR43</td> <td>$I_F = 2\text{mA}$</td> </tr> <tr> <td>CDBUR43</td> <td>$I_F = 15\text{mA}$</td> </tr> </table>	CDBUR42/43	$I_F = 200\text{mA}$	CDBUR42	$I_F = 10\text{mA}$	CDBUR42	$I_F = 50\text{mA}$	CDBUR43	$I_F = 2\text{mA}$	CDBUR43	$I_F = 15\text{mA}$	V_F			<table style="border: none;"> <tr> <td>1</td> </tr> <tr> <td>0.4</td> </tr> <tr> <td>0.65</td> </tr> <tr> <td>0.33</td> </tr> <tr> <td>0.45</td> </tr> </table>	1	0.4	0.65	0.33	0.45	V
CDBUR42/43	$I_F = 200\text{mA}$																				
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1																					
0.4																					
0.65																					
0.33																					
0.45																					
Reverse current	$V_R = 25\text{V}$	I_R			0.5	μA															
Capacitance between terminals	$f = 1 \text{ MHz}$, and 1 VDC reverse voltage	C_T			10	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}			5	nS															

RATING AND CHARACTERISTIC CURVES (CDBUR42/43)

Fig. 1 - Forward characteristics

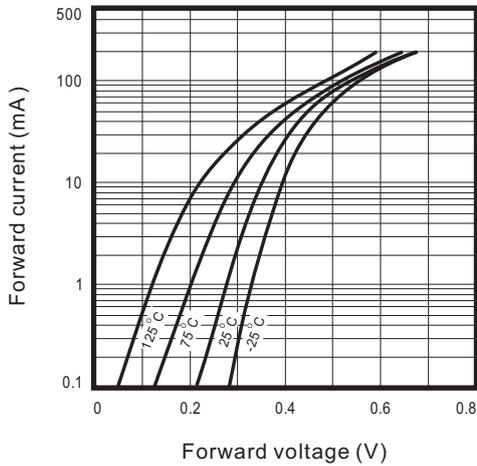


Fig. 2 - Reverse characteristics

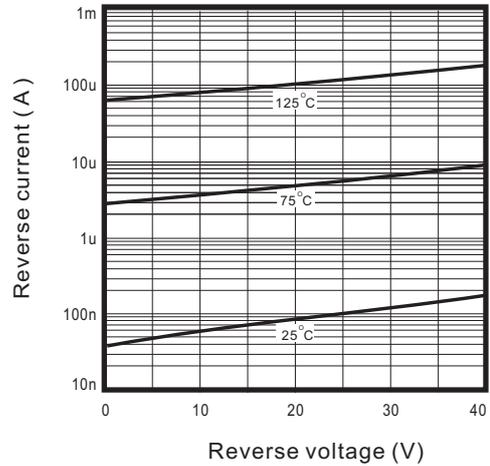


Fig.3 - Capacitance between terminals characteristics

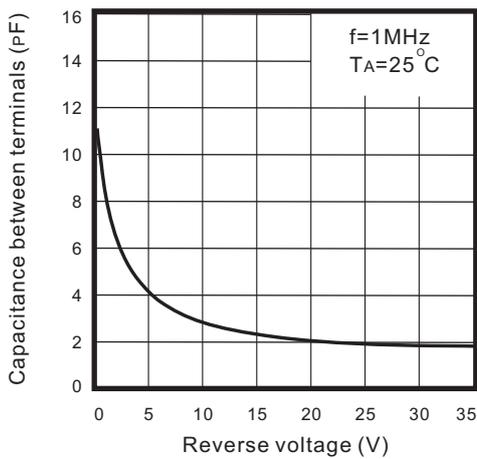
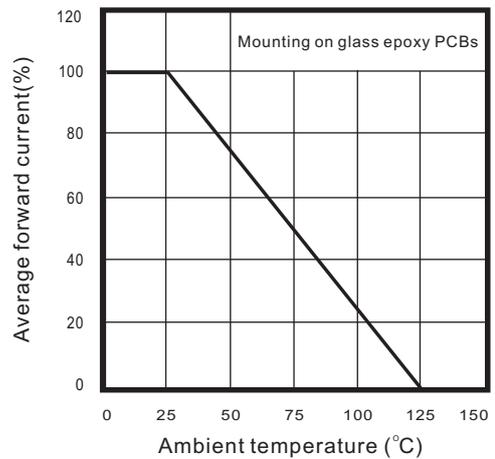
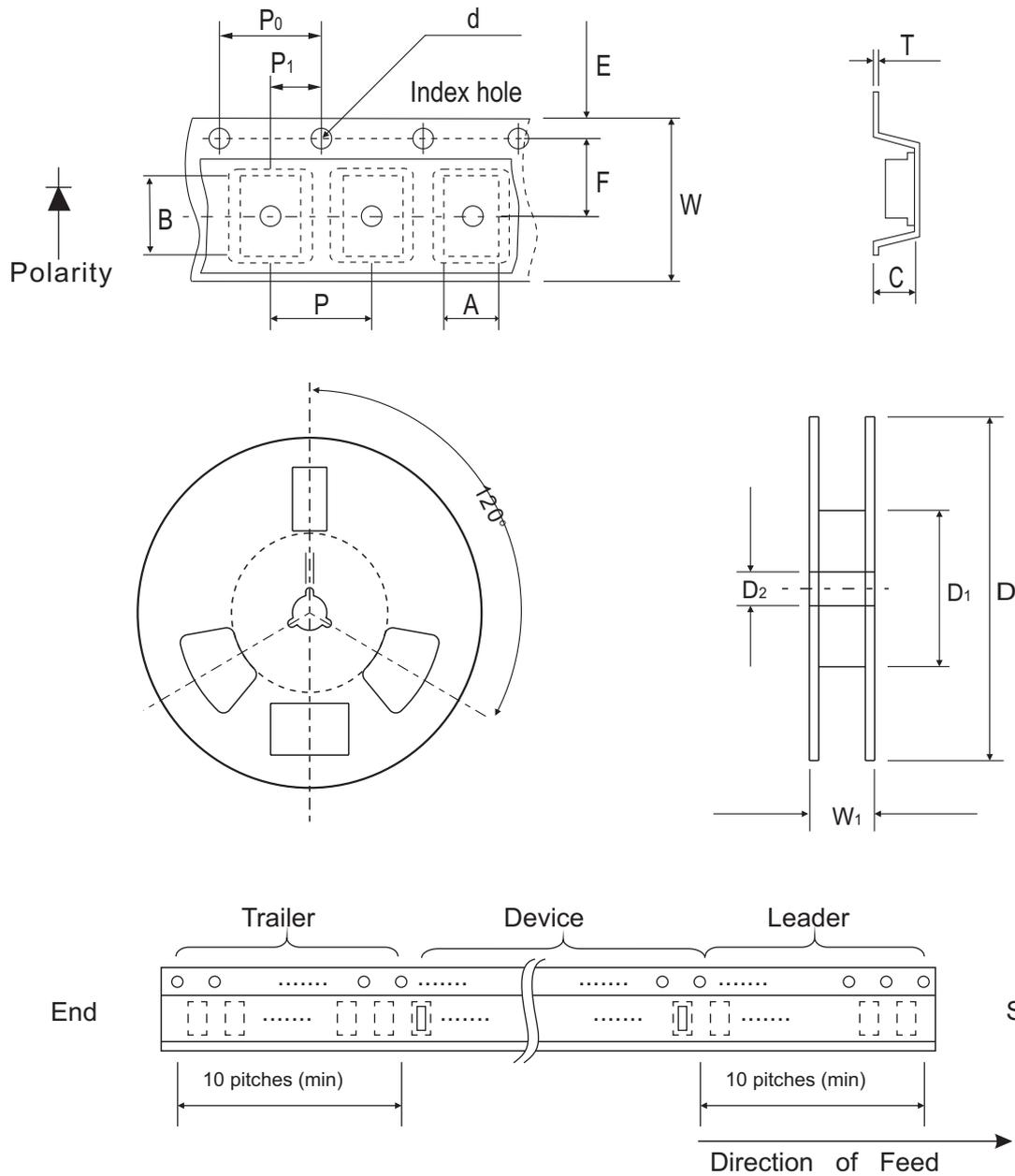


Fig.4 - Current derating curve



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

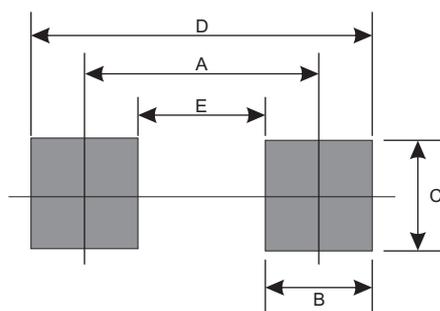
Park Number	Marking Code
CDBUR42	BD
CDBUR43	BE



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 Package

Case Type	Qty per Reel	Reel Size
	(Pcs)	(inch)
0603/SOD-523F	4000	7