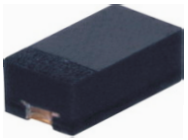
SMD Schottky Barrier Diode

COMCHIP
SMD Diodes Specialist

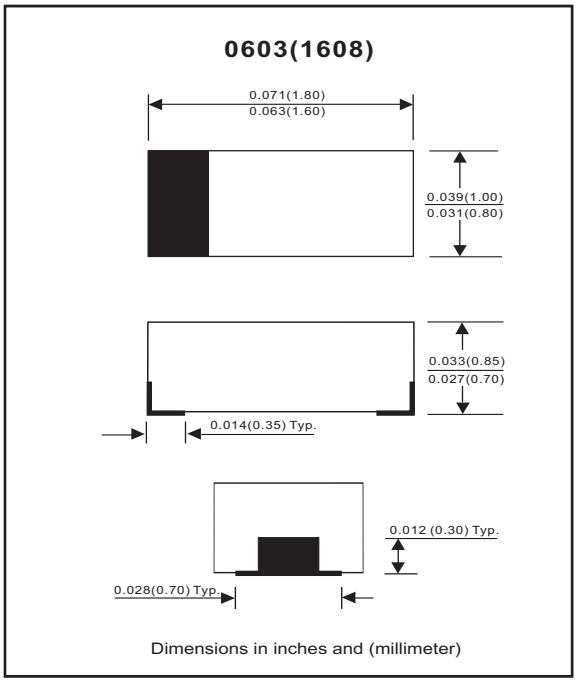
CDBU42/43-HF (RoHS Device)

Io = 200 mA
V_R = 30 Volts



Features

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



Mechanical data

Case: 0603(1608) standard package, molded plastic.

Terminals: Gold plated, solderable per MIL-STD-750,method 2026.

Marking code:
CDBU42-HF : BD
CDBU43-HF : BE

Mounting position: Any

Weight: 0.003 gram(approx.).

Maximum Rating (at T_A=25°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	°C/W
Storage temperature		T_{STG}	-55		+125	°C
Junction temperature		T_j			+125	°C

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

Parameter		Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	CDBU42/43-HF	I_F = 200mA	V_F			1	V
	CDBU42-HF	I_F = 10mA				0.4	
	CDBU42-HF	I_F = 50mA				0.65	
	CDBU43-HF	I_F = 2mA				0.33	
	CDBU43-HF	I_F = 15mA				0.45	
Reverse current		V_R = 25V	I_R			0.5	uA
Capacitance between terminals		f = 1 MHz, and 1 VDC reverse voltage	C_T			10	pF
Reverse recovery time		I_F=I_R=10mA,Irr=0.1xIR,RL=100 ohm	T_{rr}			5	nS

RATING AND CHARACTERISTIC CURVES (CDBU42/43-HF)

Fig. 1 - Forward characteristics

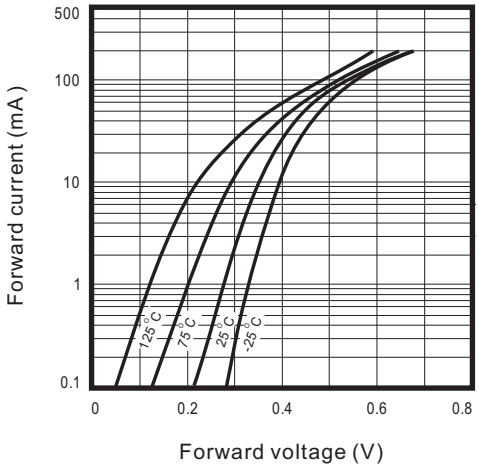


Fig. 2 - Reverse characteristics

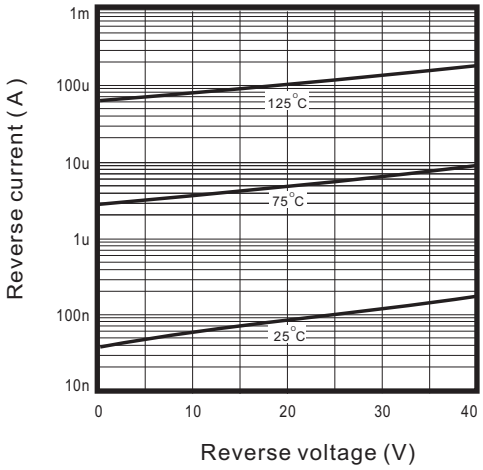


Fig.3 - Capacitance between terminals characteristics

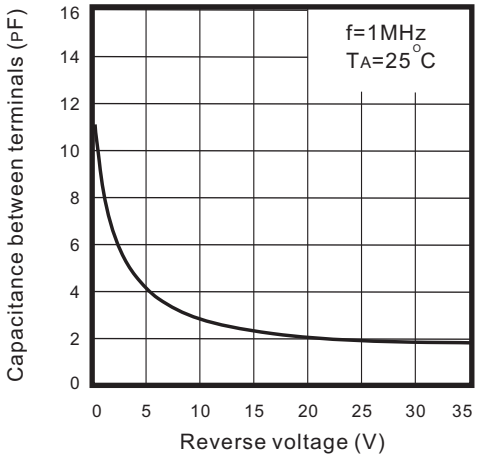
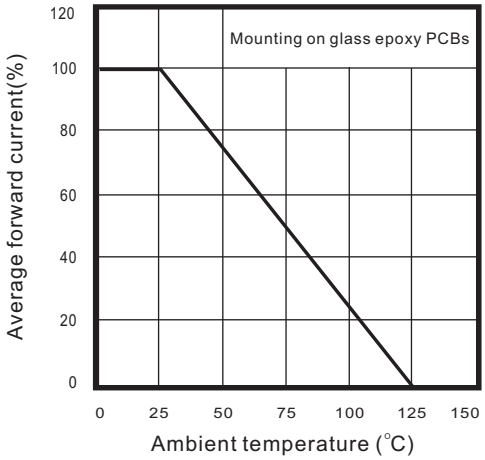
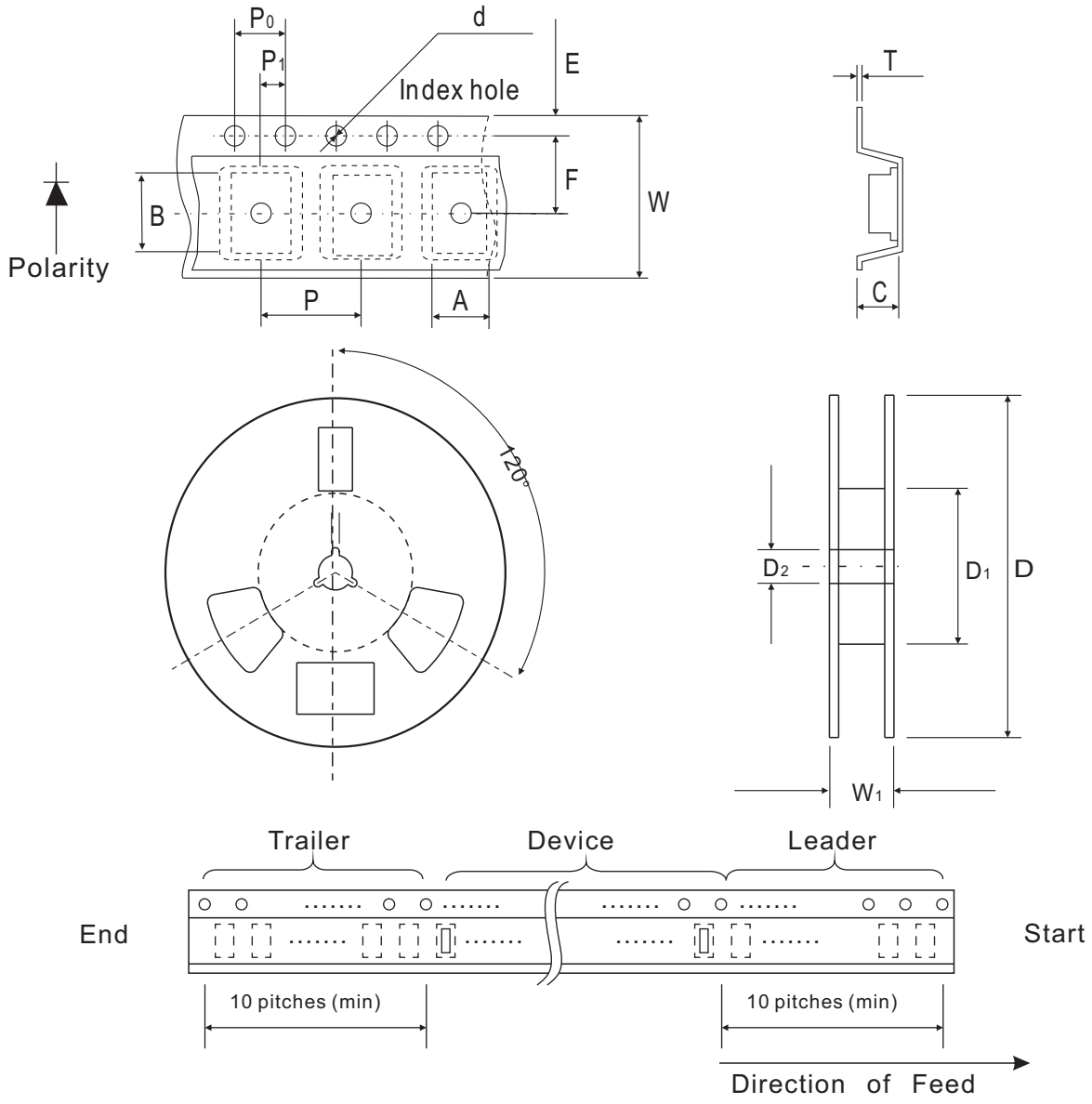


Fig.4 - Current derating curve



Reel Taping Specification



	SYMBOL	A	B	C	d	D	D_1	D_2
U/0603	(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

	SYMBOL	E	F	P	P_0	P_1	T	W	W_1
U/0603	(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.

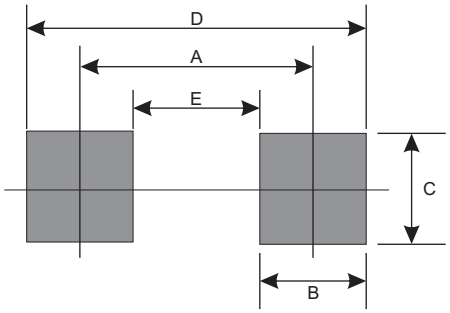
Marking Code

Park Number	Marking Code
CDBU42-HF	BD
CDBU43-HF	BE

xx = Product type marking code

Suggested PAD Layout

SIZE	U/0603	
	(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)
U/0603	4000	7