

# SMD Schottky Barrier Diode



SMD Diodes Specialist

## CDBU0245-HF (RoHS Device)

$I_o = 200 \text{ mA}$   
 $V_R = 45 \text{ Volts}$

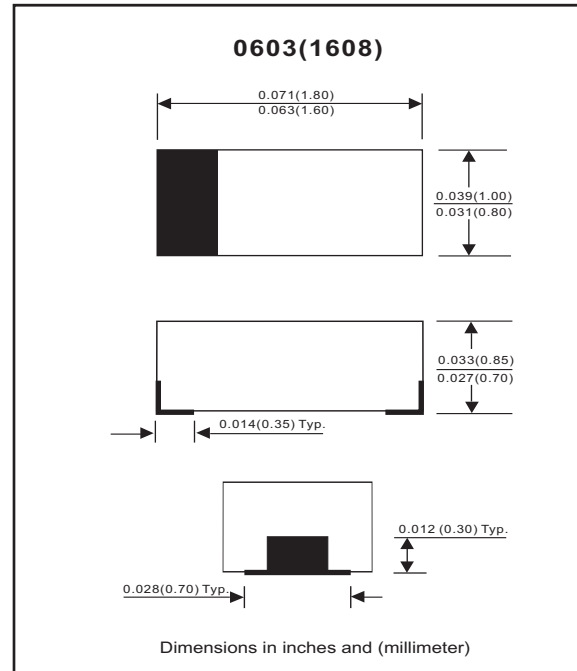


### Features

- Halogen free.
- Designed for mounting on small surface.
- Extremely thin/leadless package.
- Low leakage current ( $I_R=0.1\mu\text{A typ.}@V_R=10\text{V}$ ).
- Majority carrier conduction.

### Mechanical data

- Case: 0603(1608) standard package, molded plastic.
- Terminals: Gold plated, solderable per MIL-STD-750, method 2026.
- Marking code: cathode band & B6
- 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
Repetitive peak reverse voltage		$V_{RRM}$			50	V
Reverse voltage		$V_R$			45	V
Average forward current		$I_o$			200	mA
Forward current, surge peak	8.3ms single half sine-wave superimposed on rate load (JEDEC method)	$I_{FSM}$		2000		mA
Power Dissipation		$P_D$			150	mW
Storage temperature		$T_{STG}$	-40		+125	$^\circ\text{C}$
Junction temperature		$T_j$	-40		+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	$I_F = 200 \text{ mA DC}$	$V_F$			0.55	V
Reverse current	$V_R = 10 \text{ V}$	$I_R$			1	$\mu\text{A}$
Capacitance between terminals	$f = 1 \text{ MHz}$ , and 10VDC reverse voltage	$C_T$		9		pF

## RATING AND CHARACTERISTIC CURVES (CDBU0245-HF)

Fig. 1 - Forward characteristics

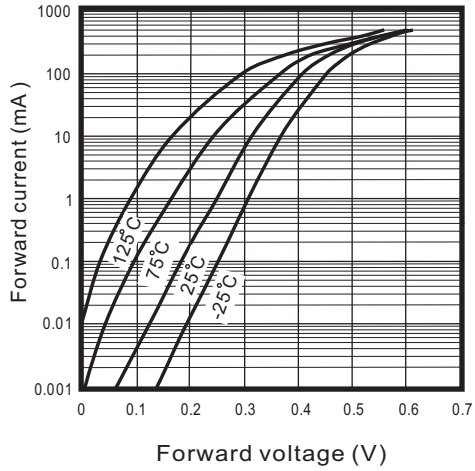


Fig. 2 - Reverse characteristics

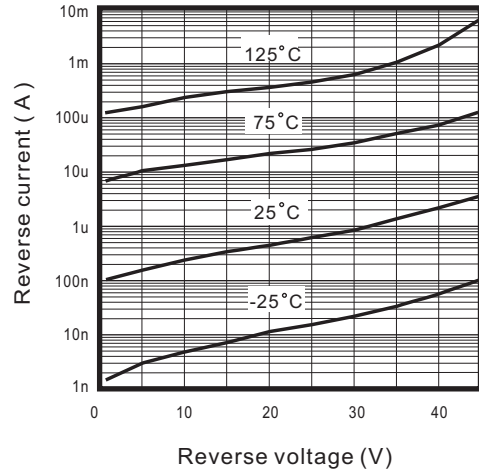


Fig. 3 - Capacitance between terminals characteristics

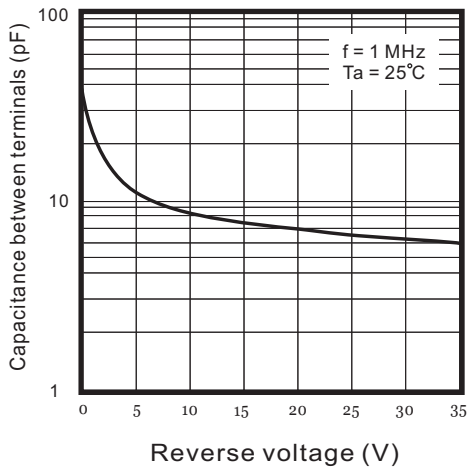
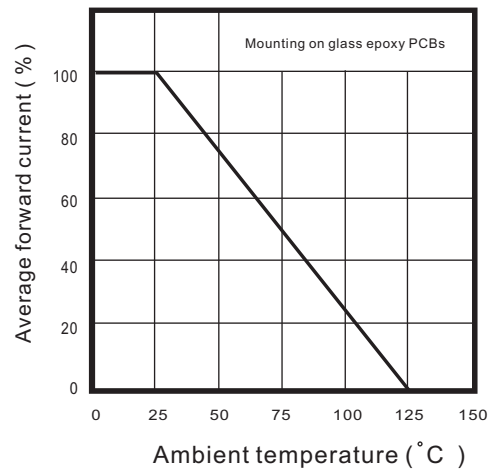
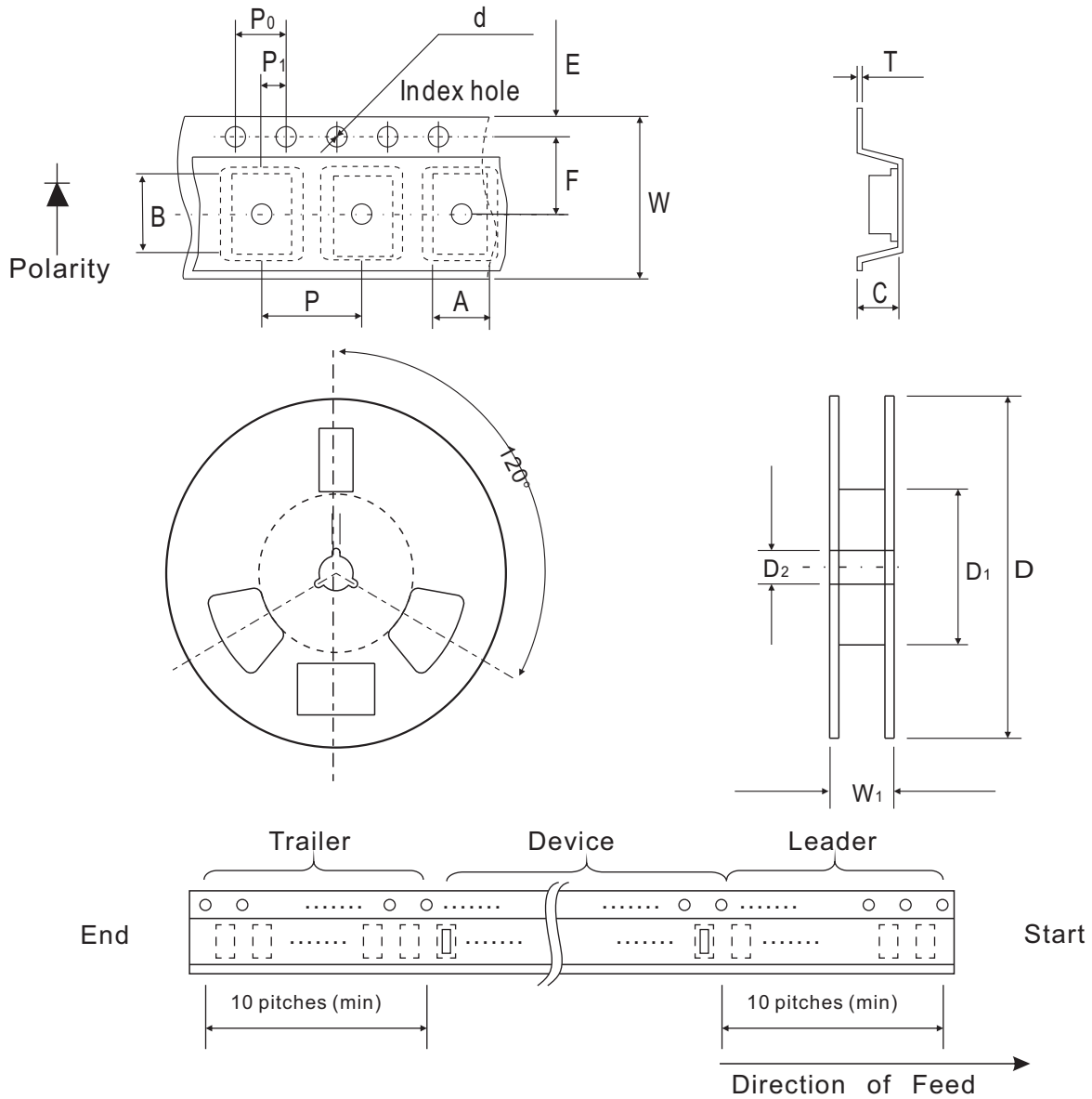


Fig. 4 - Current derating curve



## Reel Taping Specification



U/0603	SYMBOL	A	B	C	d	D	D <sub>1</sub>	D <sub>2</sub>
	(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

U/0603	SYMBOL	E	F	P	P <sub>0</sub>	P <sub>1</sub>	T	W	W <sub>1</sub>
	(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
CDBU0245-HF	B6



## 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