

SMD Schottky Barrier Diode



SMD Diodes Specialist

CDBU42/43 (RoHS Device)

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

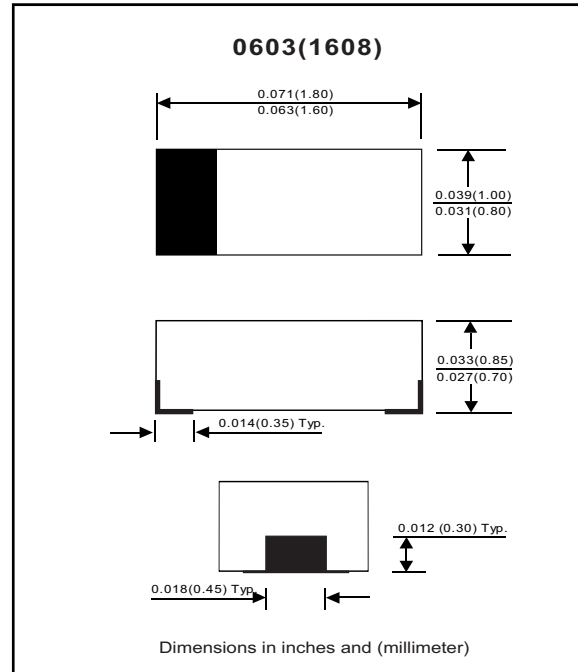


Features

- 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.
- Polarity: Indicated by cathode band.
- Mounting position: Any
- Weight: 0.003 gram(approx.).



Maximum Rating (at TA=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 TA=25°C unless otherwise noted)

Parameter	Conditions	Symbol	Min	Typ	Max	Unit
Forward voltage	$I_F = 200 \text{ mA}$ $I_F = 10 \text{ mA}$ $I_F = 50 \text{ mA}$ $I_F = 2 \text{ mA}$ $I_F = 15 \text{ mA}$	V_F			1 0.4 0.65 0.33 0.45	V
Reverse current	$V_R = 25 \text{ V}$	I_R			0.5	uA
Capacitance between terminals	$f = 1 \text{ MHz}$, and 1VDC 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

REV:A

RATING AND CHARACTERISTIC CURVES (CDBU42/43)

Fig. 1 - Forward characteristics

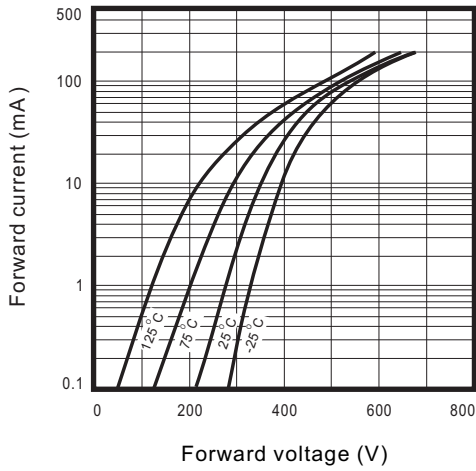


Fig. 2 - Reverse characteristics

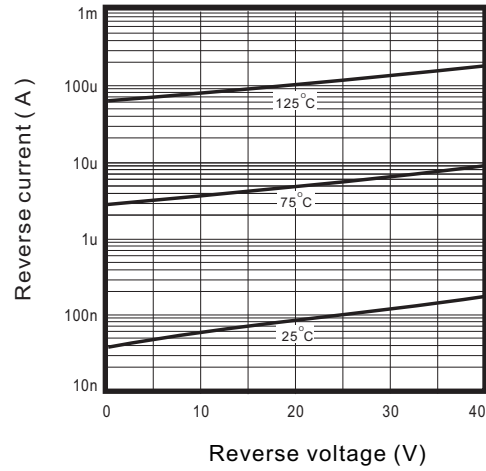


Fig.3 - Capacitance between terminals characteristics

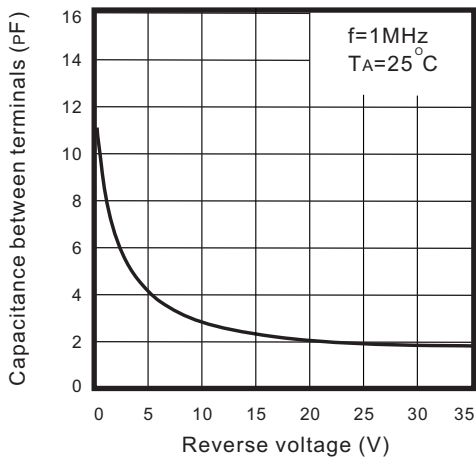


Fig.4 - Current derating curve

