



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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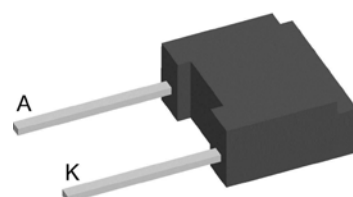
Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



Breakover Diode Gen² (BOD2)

$$V_{BO} = 400-1400 \text{ V}$$
$$I_{AVM} = 0.9 \text{ A}$$

V_{BO} [V]	Standard Types
400 ±50	IXBOD2-04
500 ±50	IXBOD2-05
600 ±50	IXBOD2-06
700 ±50	IXBOD2-07
800 ±50	IXBOD2-08
900 ±50	IXBOD2-09
1000 ±50	IXBOD2-10
1100 ±50	IXBOD2-11
1200 ±50	IXBOD2-12
1300 ±50	IXBOD2-13
1400 ±50	IXBOD2-14



Backside: isolated



Features / Advantages:

- Extra fast turn-on
- Very low temperature dependance

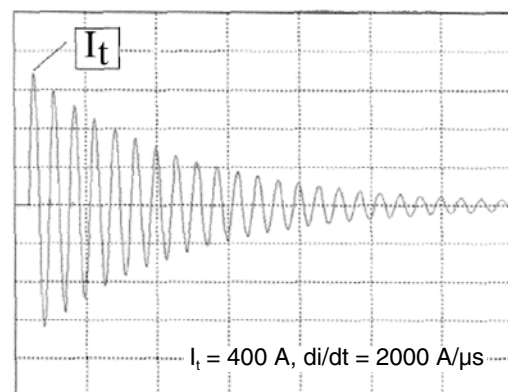
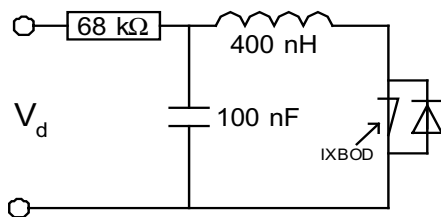
Applications:

- High voltage circuit protection
- Transient voltage protection
- Trigger device
- Power pulse generators
- Lightning and arcing protection
- Energy discharge circuits
- Battery overvoltage protection
- Solar array protection

Package: FP-Case

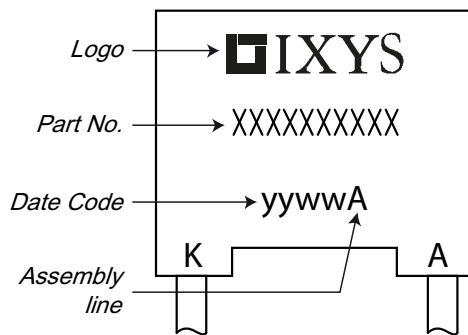
- Industry standard outline
- RoHS compliant
- Epoxy meets UL 94V-0
- Soldering pins for PCB mounting
- Base plate: Plastic overmolded tab
- Reduced weight

BOD2				Ratings			
Symbol	Definitions	Conditions		min.	typ.	max.	
I_D	drain current	$V_D = 0.8 \cdot V_{BO}$	$T_{VJ} = 25^\circ\text{C}$ $T_{VJ} = 125^\circ\text{C}$			10 200	μA μA
V_{BO}	breakover voltage	$V_{BO}(T_{VJ}) = V_{BO, 25^\circ\text{C}} [1 + K_T (T_{VJ} - 25^\circ\text{C})]$					V
I_{RMS}	RMS current	$f = 50 \text{ Hz}$ pins soldered to printed circuit (conductor 0.035x2mm)	$T_{amb} = 50^\circ\text{C}$			1.4	A
I_{FAVM}	maximum average forward current					0.9	A
I_{SM}	maximum pulsed source current	$t_p = 0.1 \text{ ms}$; non repetitive	$T_{VJ} = 150^\circ\text{C}$			250	A
I^2t	I^2t value for fusing	$t_p = 0.1 \text{ ms}$	$T_{VJ} = 150^\circ\text{C}$			3.1	A^2s
K_T	temperature coefficient of V_{BO}					$0.7 \cdot 10^{-3}$	K^{-1}
K_P	coefficient for energy per pulse EP (material constant)					700	K/Ws
R_{thJA}	thermal resistance junction to ambient	natural convection with air speed 2 m/s				60 45	K/W K/W
I_{BO}	breakover current		$T_{VJ} = 25^\circ\text{C}$ $T_{VJ} = 150^\circ\text{C}$			15 6	mA mA
I_H	holding current		$T_{VJ} = 25^\circ\text{C}$ $T_{VJ} = 150^\circ\text{C}$			20 12	mA mA
V_H	holding voltage		$T_{VJ} = 25^\circ\text{C}$	4		8	V
$(dv/dt)_{cr}$	critical rate of rise of voltage	$V_D = 0.9 \cdot V_{BO}$	$T_{VJ} = 25^\circ\text{C}$ $T_{VJ} = 150^\circ\text{C}$			3000 1000	V/ μs V/ μs
$(di/dt)_{cr}$	critical rate of rise of current	$I_T = 100 \text{ A}$; $V_D = V_{BO}$; $f = 50 \text{ Hz}$ $I_T = 600 \text{ A}$; non repetitive	$T_{VJ} = 150^\circ\text{C}$			200 500	A/ μs A/ μs
t_q	turn-off time	$V_D = 0.75 \cdot V_{BO}$; $V_R = 0 \text{ V}$; $I_T = 100 \text{ A}$ $dv/dt_{(lin.)} = 5000 \text{ V}/\mu\text{s}$; $di/dt = -500 \text{ A}/\mu\text{s}$	$T_{VJ} = 125^\circ\text{C}$		200		μs
V_T	forward voltage drop	$I_T = 10 \text{ A}$	$T_{VJ} = 125^\circ\text{C}$ $T_{VJ} = 150^\circ\text{C}$			1.3 1.2	V V
V_{T0}	threshold voltage	for power-loss calculation only	$T_{VJ} = 150^\circ\text{C}$			0.75	V
r_T	slope resistance					0.05	Ω



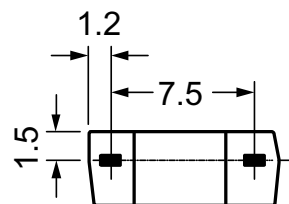
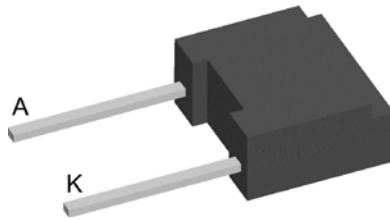
Package FP-Case			Ratings			
Symbol	Definitions	Conditions	min.	typ.	max.	
T_{amb}	ambient temperature (cooling medium)		-40		150	°C
T_{stg}	storage temperature		-40		150	°C
T_{vJM}	maximum virtual junction temperature		-40		150	°C
Weight				0.9		g

Product Marking



Ordering	Part Name	Marking on Product	Delivering Mode	Base Qty	Ordering Code
Standard	IXBOD2-04	IXBOD2-04	Box	100	511174
Standard	IXBOD2-05	IXBOD2-05	Box	100	tbd
Standard	IXBOD2-06	IXBOD2-06	Box	100	tbd
Standard	IXBOD2-07	IXBOD2-07	Box	100	508425
Standard	IXBOD2-08	IXBOD2-08	Box	100	507602
Standard	IXBOD2-09	IXBOD2-09	Box	100	511668
Standard	IXBOD2-10	IXBOD2-10	Box	100	508078
Standard	IXBOD2-11	IXBOD2-11	Box	100	511860
Standard	IXBOD2-12	IXBOD2-12	Box	100	511675
Standard	IXBOD2-13	IXBOD2-13	Box	100	511682
Standard	IXBOD2-14	IXBOD2-14	Box	100	509782

Outlines FP-case



Dimensions in mm
(1 mm = 0.0394")

