

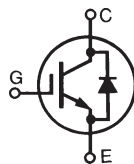
High Voltage, High Gain BIMOSFET™ Monolithic Bipolar MOS Transistor

IXBA16N170AHV IXBT16N170AHV

$$V_{CES} = 1700V$$

$$I_{C25} = 16A$$

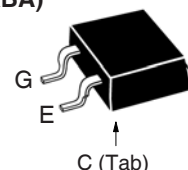
$$V_{CE(sat)} \leq 6.0V$$



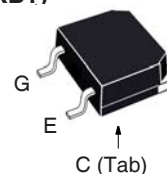
Symbol	Test Conditions	Maximum Ratings	
V_{CES}	$T_C = 25^\circ C$ to $150^\circ C$	1700	V
V_{CGR}	$T_J = 25^\circ C$ to $150^\circ C$, $R_{GE} = 1M\Omega$	1700	V
V_{GES}	Continuous	± 20	V
V_{GEM}	Transient	± 30	V
I_{C25}	$T_C = 25^\circ C$	16	A
I_{C90}	$T_C = 90^\circ C$	10	A
I_{CM}	$T_C = 25^\circ C$, 1ms	40	A
SSOA (RBSOA)	$V_{GE} = 15V$, $T_{VJ} = 125^\circ C$, $R_G = 33\Omega$ Clamped Inductive Load	$I_{CM} = 40$ 1350	A V
t_{sc} (SCSOA)	$V_{GE} = 15V$, $V_{CE} = 1200V$, $T_J = 125^\circ C$ $R_G = 33\Omega$, Non Repetitive	10	μs
P_C	$T_C = 25^\circ C$	150	W
T_J		-55 ... +150	$^\circ C$
T_{JM}		150	$^\circ C$
T_{stg}		-55 ... +150	$^\circ C$
T_L	Maximum Lead Temperature for Soldering	300	$^\circ C$
T_{SOLD}	Plastic Body for 10s	260	$^\circ C$
F_C	Mounting Force (TO-263)	10..65 / 22..14.6	N/lb
Weight	TO-263	2.5	g
	TO-268	4.0	g

Symbol	Test Conditions ($T_J = 25^\circ C$ Unless Otherwise Specified)	Characteristic Values		
		Min.	Typ.	Max.
BV_{CES}	$I_C = 250\mu A$, $V_{GE} = 0V$	1700		V
$V_{GE(th)}$	$I_C = 250\mu A$, $V_{CE} = V_{GE}$	2.5		5.5 V
I_{CES}	$V_{CE} = 0.8 \cdot V_{CES}$, $V_{GE} = 0V$ $T_J = 125^\circ C$			50 μA 1.5 mA
I_{GES}	$V_{CE} = 0V$, $V_{GE} = \pm 20V$			± 100 nA
$V_{CE(sat)}$	$I_C = 10A$, $V_{GE} = 15V$, Note 1 $T_J = 125^\circ C$		5.0	6.0 V V

TO-263HV (IXBA)



TO-268HV (IXBT)



G = Gate C = Collector
E = Emitter Tab = Collector

Features

- High Voltage Package
- High Blocking Voltage
- Anti-Parallel Diode
- Low Conduction Losses

Advantages

- Low Gate Drive Requirement
- High Power Density

Applications:

- Switch-Mode and Resonant-Mode Power Supplies
- Uninterruptible Power Supplies (UPS)
- Laser Generators
- Capacitor Discharge Circuits
- AC Switches

