

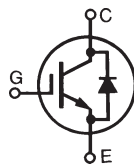
# High Voltage, High Gain BIMOSFET™ Monolithic Bipolar MOS Transistor

## IXBA16N170AHV IXBT16N170AHV

$$V_{CES} = 1700V$$

$$I_{C25} = 16A$$

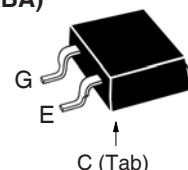
$$V_{CE(sat)} \leq 6.0V$$



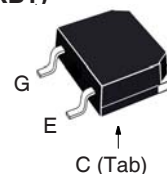
Symbol	Test Conditions	Maximum Ratings	
$V_{CES}$	$T_C = 25^\circ C$ to $150^\circ C$	1700	V
$V_{CGR}$	$T_J = 25^\circ C$ to $150^\circ C$ , $R_{GE} = 1M\Omega$	1700	V
$V_{GES}$	Continuous	$\pm 20$	V
$V_{GEM}$	Transient	$\pm 30$	V
$I_{C25}$	$T_C = 25^\circ C$	16	A
$I_{C90}$	$T_C = 90^\circ C$	10	A
$I_{CM}$	$T_C = 25^\circ C$ , 1ms	40	A
<b>SSOA (RBSOA)</b>	$V_{GE} = 15V$ , $T_{VJ} = 125^\circ C$ , $R_G = 33\Omega$ Clamped Inductive Load	$I_{CM} = 40$ 1350	A V
<b>t<sub>sc</sub> (SCSOA)</b>	$V_{GE} = 15V$ , $V_{CE} = 1200V$ , $T_J = 125^\circ C$ $R_G = 33\Omega$ , Non Repetitive	10	$\mu s$
$P_C$	$T_C = 25^\circ C$	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
<b>Weight</b>	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 $\mu A$ 1.5 mA
$I_{GES}$	$V_{CE} = 0V$ , $V_{GE} = \pm 20V$			$\pm 100$ 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





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