

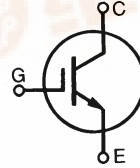


HiPerFAST™ IGBT

IXGH 28N90B
IXGT 28N90B

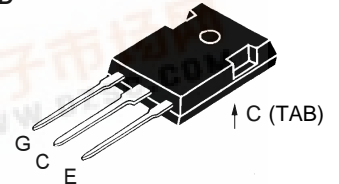
$V_{CES} = 900 \text{ V}$
 $I_{C25} = 51 \text{ A}$
 $V_{CE(SAT)} = 2.7 \text{ V}$
 $t_{fi(typ)} = 130 \text{ ns}$

Preliminary data sheet

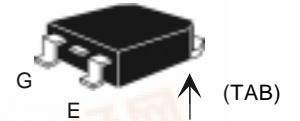


Symbol	Test Conditions	Maximum Ratings
V_{CES}	$T_J = 25^\circ\text{C to } 150^\circ\text{C}$	900 V
V_{CGR}	$T_J = 25^\circ\text{C to } 150^\circ\text{C}; R_{GE} = 1 \text{ M}\Omega$	900 V
V_{GES}	Continuous	$\pm 20 \text{ V}$
V_{GEM}	Transient	$\pm 30 \text{ V}$
I_{C25}	$T_C = 25^\circ\text{C}$	51 A
I_{C110}	$T_C = 110^\circ\text{C}$	28 A
I_{CM}	$T_C = 25^\circ\text{C}, 1 \text{ ms}$	120 A
SSOA (RBSOA)	$V_{GE} = 15 \text{ V}, T_{VJ} = 125^\circ\text{C}, R_G = 10 \Omega$ Clamped inductive load, $L = 100 \mu\text{H}$	$I_{CM} = 56 \text{ A}$ @ $0.8 V_{CES}$
P_C	$T_C = 25^\circ\text{C}$	200 W
T_J		-55 ... +150 °C
T_{JM}		150 °C
T_{stg}		-55 ... +150 °C
Maximum lead temperature for soldering 1.6 mm (0.062 in.) from case for 10 s		300 °C
M_d	Mounting torque (M3)	1.13/10Nm/lb.in.
Weight	TO-247 AD	6 g
	TO-247 SMD	4 g

TO-247 AD (IXGH)



TO-268 (D3) (IXGT)



G = Gate, E = Emitter, C = Collector, TAB = Collector

Features

- International standard packages JEDEC TO-268 surface mountable and JEDEC TO-247 AD
- High current handling capability
- Latest generation HDMOS™ process
- MOS Gate turn-on - drive simplicity

Applications

- AC motor speed control
- DC servo and robot drives
- DC choppers
- Uninterruptible power supplies (UPS)
- Switched-mode and resonant-mode power supplies

Advantages

- Space savings (two devices in one package)
- High power density
- Suitable for surface mounting
- Switching speed for high frequency applications
- Easy to mount with 1 screw, TO-247 (isolated mounting screw hole)

Symbol	Test Conditions	Characteristic Values ($T_J = 25^\circ\text{C}$, unless otherwise specified)		
		min.	typ.	max.
BV_{CES}	$I_C = 250 \mu\text{A}, V_{GE} = 0 \text{ V}$	900		V
$V_{GE(th)}$	$I_C = 250 \mu\text{A}, V_{CE} = V_{GE}$	2.5		V
I_{CES}	$V_{CE} = V_{CES}$ $V_{GE} = 0 \text{ V}$	$T_J = 25^\circ\text{C}$		500 μA
		$T_J = 150^\circ\text{C}$		5 mA
I_{GES}	$V_{CE} = 0 \text{ V}, V_{GE} = \pm 20 \text{ V}$			$\pm 100 \text{ nA}$
$V_{CE(sat)}$	$I_C = I_{C110}, V_{GE} = 15 \text{ V}$	2.2	2.7	V



