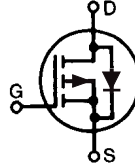


# Standard Power MOSFET

P-Channel Enhancement Mode  
Avalanche Rated

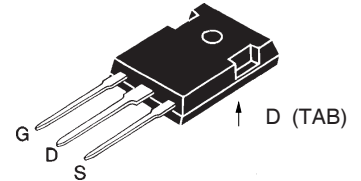
**IXTH 8P50**  
**IXTT 8P50**

$$\begin{aligned} V_{DSS} &= -500 \text{ V} \\ I_{D25} &= -8 \text{ A} \\ R_{DS(on)} &= 1.2 \Omega \end{aligned}$$

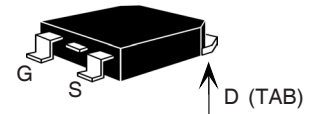


Symbol	Test Conditions	Maximum Ratings	
$V_{DSS}$	$T_J = 25^\circ\text{C}$ to $150^\circ\text{C}$	-500	V
$V_{DGR}$	$T_J = 25^\circ\text{C}$ to $150^\circ\text{C}$ ; $R_{GS} = 1 \text{ M}\Omega$	-500	V
$V_{GS}$	Continuous	$\pm 20$	V
$V_{GSM}$	Transient	$\pm 30$	V
$I_{D25}$	$T_C = 25^\circ\text{C}$	-8	A
$I_{DM}$	$T_C = 25^\circ\text{C}$ , pulse width limited by $T_J$	-32	A
$I_{AR}$	$T_C = 25^\circ\text{C}$	-8	A
$E_{AR}$	$T_C = 25^\circ\text{C}$	30	mJ
$P_D$	$T_C = 25^\circ\text{C}$	180	W
$T_J$		-55 ... +150	$^\circ\text{C}$
$T_{JM}$		150	$^\circ\text{C}$
$T_{stg}$		-55 ... +150	$^\circ\text{C}$
	Maximum lead temperature for soldering 1.6 mm (0.062 in.) from case for 10 s	300	$^\circ\text{C}$
	Plastic Body for 10s	250	$^\circ\text{C}$
$M_d$	Mounting torque (TO-247)	1.13/10	Nm/lb.in.
Weight	TO-247	6	g
	TO-268	5	g

TO-247 (IXTH)



TO-268 (IXTT)



G = Gate, D = Drain,  
S = Source, TAB = Drain

### Features

- International standard packages
- Low  $R_{DS(on)}$  HDMOS™ process
- Rugged polysilicon gate cell structure
- Unclamped Inductive Switching (UIS) rated
- Low package inductance (<5 nH)  
- easy to drive and to protect

### Applications

- High side switching
- Push-pull amplifiers
- DC choppers
- Automatic test equipment

### Advantages

- Easy to mount with 1 screw  
(isolated mounting screw hole)
- Space savings
- High power density

Symbol	Test Conditions	Characteristic Values ( $T_J = 25^\circ\text{C}$ , unless otherwise specified)		
		min.	typ.	max.
$V_{DSS}$	$V_{GS} = 0 \text{ V}$ , $I_D = -250 \mu\text{A}$ $BV_{DSS}$ Temperature Coefficient	-500	0.054	V %/K
$V_{GS(th)}$	$V_{DS} = V_{GS}$ , $I_D = -250 \mu\text{A}$ $V_{GS(th)}$ Temperature Coefficient	-3.0	-0.122	V %/K
$I_{GSS}$	$V_{GS} = \pm 20 \text{ V}_{DC}$ , $V_{DS} = 0$			$\pm 100$ nA
$I_{DSS}$	$V_{DS} = 0.8 \cdot V_{DSS}$ , $V_{GS} = 0 \text{ V}$ $T_J = 25^\circ\text{C}$ $T_J = 125^\circ\text{C}$			-200 $\mu\text{A}$ -1 mA
$R_{DS(on)}$	$V_{GS} = -10 \text{ V}$ , $I_D = 0.5 \cdot I_{D25}$ $R_{DS(on)}$ Temperature Coefficient			1.5 $\Omega$ 1.2 $\Omega$ 0.6 %/K





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