



PJP60N08

80V N-Channel MOSFET

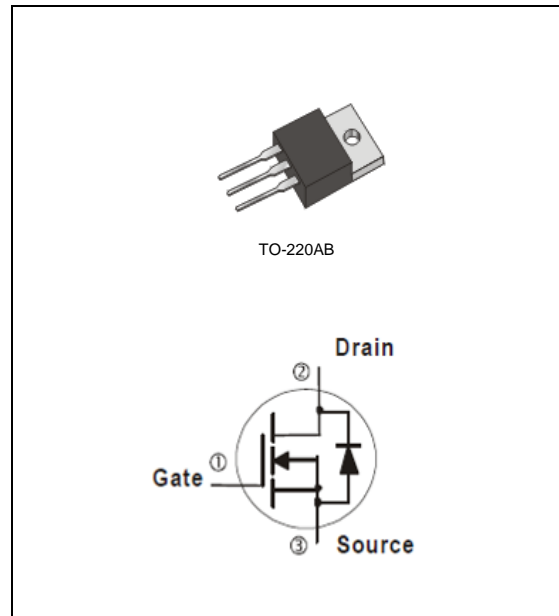
Voltage	80 V	Current	60 A
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Features

- $R_{DS(ON)}, V_{GS}@10V, I_D@20A < 10m\Omega$
- High switching speed
- Low Gate Charge
- Lead free in compliance with EU RoHS 2011/65/EU directive.
- Green molding compound as per IEC61249 Std. (Halogen Free)

Mechanical Data

- Case : TO-220AB Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- TO-220AB Approx. Weight : 0.067 ounces, 2 grams



Maximum Ratings and Thermal Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER		SYMBOL	TO-220AB	UNITS
Drain-Source Voltage		V_{DS}	80	V
Gate-Source Voltage		V_{GS}	+25	V
Continuous Drain Current		I_D	60	A
Pulsed Drain Current		I_{DM}	180	A
Single Pulse Avalanche Energy ^(Note 1)		E_{AS}	180	mJ
Power Dissipation	$T_C=25^\circ\text{C}$	P_D	130	W
	Derate above 25°C		1.04	W/ $^\circ\text{C}$
Operating Junction and Storage Temperature Range		T_J, T_{STG}	-55~150	$^\circ\text{C}$
Typical Thermal resistance				
-	Junction to Case	$R_{\theta JC}$	0.96	$^\circ\text{C/W}$
-	Junction to Ambient	$R_{\theta JA}$	62.5	

- Continuous current is limited by package
- Limited only By Maximum Junction Temperature



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Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
Static						
Drain-Source Breakdown Voltage	BV_{DSS}	$V_{GS}=0V, I_D=250\mu A$	80	-	-	V
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=250\mu A$	2	3	4	V
Drain-Source On-State Resistance	$R_{DS(on)}$	$V_{GS}=10V, I_D=20A$	-	8.5	10	m Ω
Zero Gate Voltage Drain Current	I_{DSS}	$V_{DS}=64V, V_{GS}=0V$	-	-	1.0	μA
Gate-Source Leakage Current	I_{GSS}	$V_{GS}=\pm 25V, V_{DS}=0V$	-	-	± 100	nA
Dynamic (Note 4)						
Total Gate Charge	Q_g	$V_{DS}=30V, I_D=30A,$ $V_{GS}=10V$ (Note 2,3)	-	100	-	nC
Gate-Source Charge	Q_{gs}		-	15	-	
Gate-Drain Charge	Q_{gd}		-	20	-	
Input Capacitance	C_{iss}	$V_{DS}=25V, V_{GS}=0V,$ $f=1.0\text{MHz}$	-	3075	-	pF
Output Capacitance	C_{oss}		-	390	-	
Reverse Transfer Capacitance	C_{rss}		-	188	-	
Turn-On Delay Time	$t_{d(on)}$	$V_{DS}=30V, I_D=30A,$ $V_{GS}=10V, R_G=6.8\Omega$ (Note 2,3)	-	12	-	ns
Turn-On Rise Time	t_r		-	11	-	
Turn-Off Delay Time	$t_{d(off)}$		-	18	-	
Turn-Off Fall Time	t_f		-	6	-	
Drain-Source Diode						
Maximum Continuous Drain-Source Diode Forward Current	I_S	---	-	-	60	A
Diode Forward Voltage	V_{SD}	$I_S=20A, V_{GS}=0V$	-	0.8	1.3	V

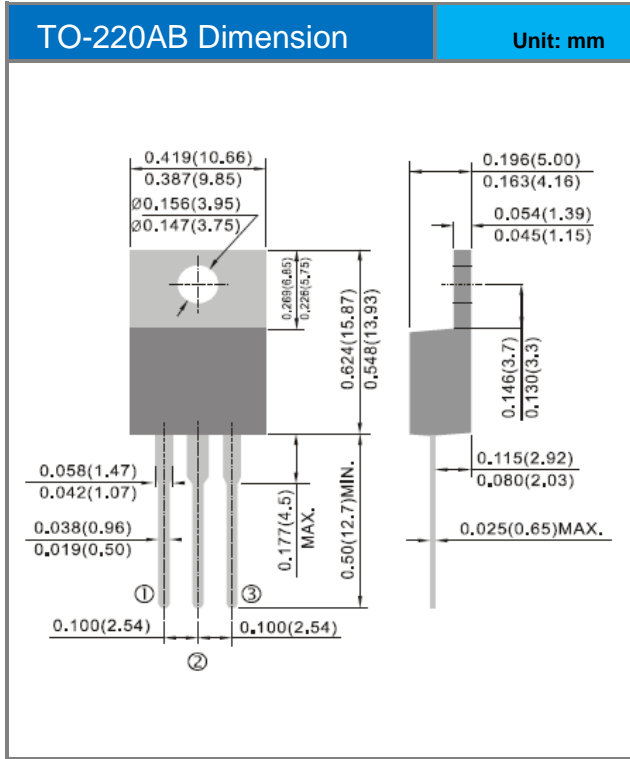
NOTES :

1. $L=0.1\text{mH}, I_{AS}=60A, R_G=25\text{ohm},$ Starting $T_J=25^\circ\text{C}$
2. Pulse width $\leq 300\mu s,$ Duty cycle $\leq 2\%$
3. Essentially independent of operating temperature typical characteristics.
4. Guaranteed by design, not subject to production testing
5. The maximum current limited by package.



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Packaging Information





PJP60N08

PART NO PACKING CODE VERSION

Part No Packing Code	Package Type	Packing type	Marking	Version
PJP60N08_TO_00001	TO-220AB	50pcs / Tube	P60N08	Halogen free



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