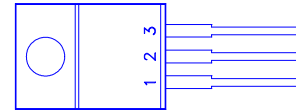
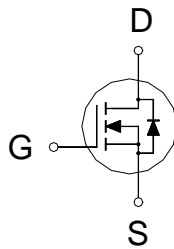


**PRODUCT SUMMARY**

$V_{(BR)DSS}$	$R_{DS(ON)}$	$I_D$
75	8mΩ	89A



1. GATE
2. DRAIN
3. SOURCE

**ABSOLUTE MAXIMUM RATINGS ( $T_A = 25\text{ °C}$  Unless Otherwise Noted)**

PARAMETERS/TEST CONDITIONS		SYMBOL	LIMITS	UNITS
Gate-Source Voltage		$V_{GS}$	±20	V
Continuous Drain Current <sup>1</sup>	$T_C = 25\text{ °C}$	$I_D$	89	A
	$T_C = 100\text{ °C}$		63	
Pulsed Drain Current <sup>2</sup>		$I_{DM}$	250	
Avalanche Current		$I_{AS}$	85	
Avalanche Energy	L = 0.1mH	$E_{AS}$	362	mJ
Power Dissipation	$T_C = 25\text{ °C}$	$P_D$	160	W
	$T_C = 100\text{ °C}$		80	
Operating Junction & Storage Temperature Range		$T_j, T_{stg}$	-55 to 175	°C

**THERMAL RESISTANCE RATINGS**

THERMAL RESISTANCE	SYMBOL	TYPICAL	MAXIMUM	UNITS
Junction-to-Case	$R_{\theta JC}$		0.94	°C / W
Case-to-Heatsink	$R_{\theta CS}$	0.5		

<sup>1</sup>Pulse width limited by maximum junction temperature.

<sup>2</sup>Limited by package.

**ELECTRICAL CHARACTERISTICS ( $T_J = 25\text{ °C}$ , Unless Otherwise Noted)**

PARAMETER	SYMBOL	TEST CONDITIONS	LIMITS			UNIT
			MIN	TYP	MAX	
<b>STATIC</b>						
Drain-Source Breakdown Voltage	$V_{(BR)DSS}$	$V_{GS} = 0V, I_D = 250\mu A$	75			V
Gate Threshold Voltage	$V_{GS(th)}$	$V_{DS} = V_{GS}, I_D = 250\mu A$	2	2.3	4.0	V
Gate-Body Leakage	$I_{GSS}$	$V_{DS} = 0V, V_{GS} = \pm 20V$			±250	nA
Zero Gate Voltage Drain Current	$I_{DSS}$	$V_{DS} = 60V, V_{GS} = 0V$			1	μA
		$V_{DS} = 60V, V_{GS} = 0V, T_J = 125\text{ °C}$			10	
On-State Drain Current <sup>1</sup>	$I_{D(ON)}$	$V_{DS} = 10V, V_{GS} = 10V$	85			A
Drain-Source On-State Resistance <sup>1</sup>	$R_{DS(ON)}$	$V_{GS} = 10V, I_D = 80A$		6.5	8	mΩ
Forward Transconductance <sup>1</sup>	$g_{fs}$	$V_{DS} = 50V, I_D = 80A$		50		S

DYNAMIC						
Input Capacitance	$C_{iss}$	$V_{GS} = 0V, V_{DS} = 25V, f = 1MHz$		7320		pF
Output Capacitance	$C_{oss}$			980		
Reverse Transfer Capacitance	$C_{rss}$			404		
Total Gate Charge <sup>2</sup>	$Q_g$	$V_{DS} = 60V, V_{GS} = 10V,$ $I_D = 80A$		129		nC
Gate-Source Charge <sup>2</sup>	$Q_{gs}$			51		
Gate-Drain Charge <sup>2</sup>	$Q_{gd}$			43.5		
Turn-On Delay Time <sup>2</sup>	$t_{d(on)}$	$V_{DD} = 40V,$ $I_D \cong 40A, V_{GS} = 10V, R_{GS} = 25\Omega$		54		nS
Rise Time <sup>2</sup>	$t_r$			243		
Turn-Off Delay Time <sup>2</sup>	$t_{d(off)}$			297		
Fall Time <sup>2</sup>	$t_f$			166		
SOURCE-DRAIN DIODE RATINGS AND CHARACTERISTICS ( $T_J = 25\text{ }^\circ\text{C}$ )						
Continuous Current	$I_S$				89	A
Forward Voltage <sup>1</sup>	$V_{SD}$	$I_F = 80A, V_{GS} = 0V$			1.3	V
Reverse Recovery Time	$t_{rr}$	$I_F = 80A, di_F/dt = 100A / \mu S$		120		nS
Reverse Recovery Charge	$Q_{rr}$			410		nC

<sup>1</sup>Pulse test : Pulse Width  $\leq 300\ \mu\text{sec}$ , Duty Cycle  $\leq 2\%$ .

<sup>2</sup>Independent of operating temperature.

**REMARK: THE PRODUCT MARKED WITH "P0808ATG", DATE CODE or LOT #**

