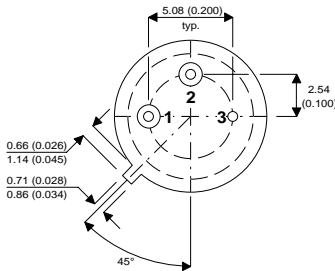
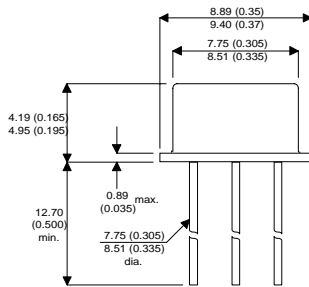


**MECHANICAL DATA**

Dimensions in mm (inches)

**P CHANNEL ENHANCEMENT  
MODE DMOS FET**

$BV_{DSS}$  - 60V  
 $I_{D(cont)}$  0.76A  
 $R_{DS(on)}$  0.5Ω



**TO39**

Pin 1 – Source      Pin 2 – Gate      Pin 3 – Drain

**FEATURES**

- FAST SWITCHING SPEEDS
- NO SECONDARY BREAKDOWN
- EXCELLENT TEMPERATURE STABILITY
- HIGH INPUT IMPEDANCE
- LOW CURRENT DRIVE
- EASE OF PARALLELING

**ABSOLUTE MAXIMUM RATINGS** ( $T_{case} = 25^{\circ}C$  unless otherwise stated)

$V_{GS}$	Gate – Source Voltage	±20
$V_{DS}$	Drain – Source Voltage	-60V
$I_D$	Continuous Drain Current ( $V_{GS} = 10V, T_{case} = 25^{\circ}C$ )	0.28A
$I_D$	Continuous Drain Current ( $V_{GS} = 10V, T_{case} = 100^{\circ}C$ )	-0.76A
$I_{DM}$	Pulsed Drain Current	-4A
$P_D$	Power Dissipation @ $T_A = 25^{\circ}C$	0.7W
$P_D$	Power Dissipation @ $T_C = 25^{\circ}C$	5W
$T_J, T_{stg}$	Operating and Storage Temperature Range	-55 to 150°C

**ELECTRICAL CHARACTERISTICS** ( $T_{amb} = 25^{\circ}\text{C}$  unless otherwise stated)

Parameter	Test Conditions	Min.	Typ.	Max.	Unit
$BV_{DSS}$ Drain – Source Breakdown Voltage	$V_{GS} = 0$ $I_D = -1\text{mA}$	- 60			V
$R_{DS(on)}$ Static Drain – Source On–State Resistance <sup>1</sup>	$V_{GS} = -10\text{V}$ $I_D = 500\text{mA}$			5	$\Omega$
$V_{GS(th)}$ Gate Threshold Voltage	$V_{DS} = V_{GS}$ $I_D = -1\text{mA}$	- 1.5		- 3.5	V
$g_{fs}$ Forward Transconductance <sup>1,2</sup>	$V_{DS} = -18\text{V}$ $I_D = 500\text{mA}$	150			mS
$I_{DSS}$ Zero Gate Voltage Drain Current	$V_{GS} = 0$ $V_{DS} = 0.8V_{DSS}$ $T = 125^{\circ}\text{C}$			- 0.5	$\mu\text{A}$
				- 100	
$I_{D(on)}$ On-state drain current <sup>1</sup>	$V_{DS} = -18\text{V}$ $V_{GS} = -10\text{V}$	- 1			A
$C_{iss}$ Input Capacitance <sup>2</sup>	$V_{GS} = 0$ $V_{DS} = -18\text{V}$ $f = 1\text{MHz}$			100	pF
$C_{oss}$ Output Capacitance <sup>2</sup>				60	
$C_{rss}$ Reverse Transfer Capacitance <sup>2</sup>				20	
$t_{d(on)}$ Turn–On Delay Time <sup>2,3</sup>	$V_{DD} = -18\text{V}$ $I_D = -500\text{mA}$			7	ns
$t_r$ Rise Time <sup>2,3</sup>				15	
$t_{d(off)}$ Turn–Off Delay Time <sup>2,3</sup>				12	
$t_f$ Fall Time <sup>2,3</sup>				15	

**Notes**

- 1) Pulse Test: Pulse Width  $\leq 300\mu\text{s}$ ,  $\delta \leq 2\%$
- 2) Sample
- 3) Switching times measured with  $50\Omega$  source impedance and  $< 5\text{ns}$  rise time on a pulse generator.