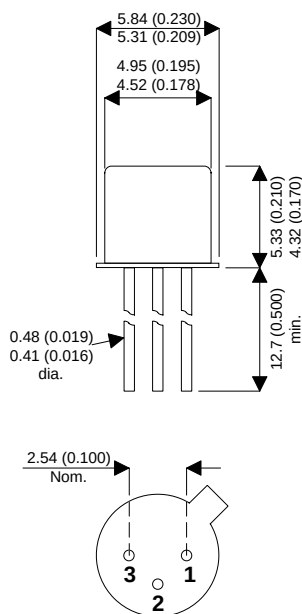
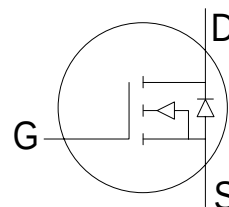


MECHANICAL DATA

Dimensions in mm (inches)



N-CHANNEL ENHANCEMENT MODE MOSFET



TO18 PACKAGE

Underside View

PIN 1 - Source

PIN 2 - Gate

PIN 3 - Drain & Case

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

V_{DS}	Drain – Source Voltage	60V
V_{GS}	Gate – Source Voltage	+15 , –0.3 V
I_D	Continuous Drain Current	@ $T_{amb} = 25^{\circ}\text{C}$ 0.17A
		@ $T_{amb} = 100^{\circ}\text{C}$ 0.11A
I_{DM}	Pulsed Drain Current ¹	1.0A
P_D	Power Dissipation	@ $T_{amb} = 25^{\circ}\text{C}$ 1.5W
		@ $T_{amb} = 100^{\circ}\text{C}$ 0.12W
T_{STG} , T_J	Maximum Junction and Storage Temperature Range	–55 to 150°C

NOTE:

1) Repetitive Rating: Pulse Width limited by maximum junction temperature.

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

Characteristic		Test Conditions		Min.	Typ.	Max.	Unit
STATIC CHARACTERISTICS							
BV _{DSS}	Drain – Source Breakdown Voltage	V _{GS} = 0V	I _D = 100μA	60	120		V
V _{GS(TH)}	Gate Threshold Voltage	V _{DS} = V _{GS}	I _D = 1mA	0.8	1.4	2.5	
I _{GSS}	Gate – Source Leakage Current	V _{DS} = 0V	V _{GS} = 15V		1	100	nA
I _{DSS}	Zero Gate Voltage Drain Current	V _{DS} = 48V	V _{GS} = 0V		0.7	10	μA
			T _J = 125°C		3	500	
I _{D(ON)}	On State Drain Current ¹	V _{DS} = 10V	V _{GS} = 10V	750	1000		mA
R _{DS(ON)}	Static Drain – Source On-State Resistance ¹	V _{GS} = 5V	I _D = 0.2A		4	7.5	Ω
		V _{GS} = 10V	I _D = 0.5A		3	5	
			T _J = 125°C		5.6	9	
g _{fs}	Forward Transconductance ¹	V _{DS} = 10V	I _D = 0.5A	100	300		mS
g _{os}	Common Source Output Conductance	V _{DS} = 7.5V	I _D = 50mA		200		μS
DYNAMIC CHARACTERISTICS							
C _{iss}	Input capacitance	V _{GS} = 0V V _{DS} = 25V f = 1MHz			38	60	pF
C _{oss}	Output capacitance				16	25	
C _{rss}	Reverse transfer capacitance				2	5	
SWITCHING CHARACTERISTICS							
t _{on}	Turn–on Time	V _{DD} = 15V	R _L = 23Ω		7	10	ns
t _{off}	Turn-off Time	I _D = 0.6A	R _G = 25Ω		9	10	
		V _{GEN} = 10V					

NOTES:

1) Pulse Test: Pulse Width = $300\mu s$, Duty Cycle $\leq 2\%$

THERMAL CHARACTERISTICS

Characteristic	Min.	Typ.	Max.	Unit
$R_{\theta JA}$ Thermal Resistance Junction – Ambient when mounted on PCB			400	$^{\circ}\text{C/W}$