

N-CHANNEL MOSFET

Qualified per MIL-PRF-19500/557

DEVICES

2N6796 2N6796U

LEVELS

**JAN
JANTX
JANTXV**

ABSOLUTE MAXIMUM RATINGS ($T_C = +25^\circ\text{C}$ unless otherwise noted)

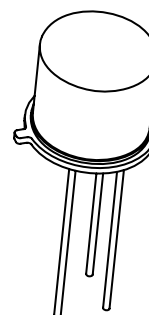
Parameters / Test Conditions	Symbol	Value	Unit
Drain – Source Voltage	V_{DS}	100	Vdc
Gate – Source Voltage	V_{GS}	± 20	Vdc
Continuous Drain Current $T_C = +25^\circ\text{C}$	I_{D1}	8.0	A _{dc}
Continuous Drain Current $T_C = +100^\circ\text{C}$	I_{D2}	5.0	A _{dc}
Max. Power Dissipation	P_{tl}	25 ⁽¹⁾	W
Drain to Source On State Resistance	$R_{ds(on)}$	0.18 ⁽²⁾	Ω
Operating & Storage Temperature	T_{op}, T_{stg}	-55 to +150	$^\circ\text{C}$

Note: (1) Derated Linearly by 0.2 W/ $^\circ\text{C}$ for $T_C > +25^\circ\text{C}$

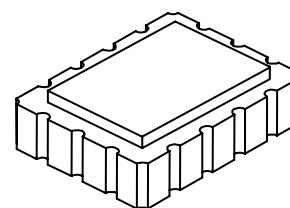
(2) $V_{GS} = 10\text{Vdc}$, $I_D = 5.0\text{A}$

ELECTRICAL CHARACTERISTICS ($T_A = +25^\circ\text{C}$, unless otherwise noted)

Parameters / Test Conditions	Symbol	Min.	Max.	Unit
Drain-Source Breakdown Voltage $V_{GS} = 0\text{V}$, $I_D = 1\text{mA}_{dc}$	$V_{(BR)DSS}$	100		Vdc
Gate-Source Voltage (Threshold) $V_{DS} \geq V_{GS}$, $I_D = 0.25\text{mA}$ $V_{DS} \geq V_{GS}$, $I_D = 0.25\text{mA}$, $T_j = +125^\circ\text{C}$ $V_{DS} \geq V_{GS}$, $I_D = 0.25\text{mA}$, $T_j = -55^\circ\text{C}$	$V_{GS(th)1}$ $V_{GS(th)2}$ $V_{GS(th)3}$	2.0 1.0	4.0 5.0	Vdc
Gate Current $V_{GS} = \pm 20\text{V}$, $V_{DS} = 0\text{V}$ $V_{GS} = \pm 20\text{V}$, $V_{DS} = 0\text{V}$, $T_j = +125^\circ\text{C}$	I_{GSS1} I_{GSS2}		± 100 ± 200	nA _{dc}
Drain Current $V_{GS} = 0\text{V}$, $V_{DS} = 80\text{V}$ $V_{GS} = 0\text{V}$, $V_{DS} = 80\text{V}$, $T_j = +125^\circ\text{C}$	I_{DSS1} I_{DSS2}		25 0.25	μA_{dc} mA _{dc}
Static Drain-Source On-State Resistance $V_{GS} = 10\text{V}$, $I_D = 5.0\text{A}$ pulsed $V_{GS} = 10\text{V}$, $I_D = 8.0\text{A}$ pulsed $T_j = +125^\circ\text{C}$ $V_{GS} = 10\text{V}$, $I_D = 5.0\text{A}$ pulsed	$r_{DS(on)1}$ $r_{DS(on)2}$ $r_{DS(on)3}$		0.18 0.195 0.35	Ω Ω Ω
Diode Forward Voltage $V_{GS} = 0\text{V}$, $I_D = 8.0\text{A}$ pulsed	V_{SD}		1.5	Vdc



**TO-205AF
(formerly TO-39)**



U – 18 LCC



6 Lake Street, Lawrence, MA 01841
1-800-446-1158 / (978) 620-2600 / Fax: (978) 689-0803
Website: <http://www.microsemi.com>

TECHNICAL DATA SHEET

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DYNAMIC CHARACTERISTICS

Parameters / Test Conditions	Symbol	Min.	Max.	Unit
Gate Charge: On-State Gate Charge Gate to Source Charge Gate to Drain Charge	$Q_{g(on)}$ Q_{gs} Q_{gd}		28.51 6.34 16.59	nC

SWITCHING CHARACTERISTICS

Parameters / Test Conditions	Symbol	Min.	Max.	Unit
Switching time tests: Turn-on delay time Rinse time Turn-off delay time Fall time	$t_{d(on)}$ t_r $t_{d(off)}$ t_f		30 75 40 45	ns
Diode Reverse Recovery Time	t_{rr}		300	ns