Microsemi LAWRENCE

TECHNICAL DATA

N-CHANNEL J-FET

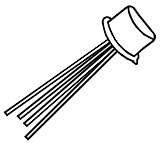
Qualified per MIL-PRF-19500/428

Devices	*Qualified Level*
2N4416A	**JAN JANTX JANTXV**

ABSOLUTE MAXIMUM RATINGS

Parameters / Test Conditions	Symbol	2N4416A	Unit
Gate-Source Voltage	V_{GS}	-35	Vdc
Drain-Source Voltage	V_{DS}	35	Vdc
Drain-Gate Voltage	V_{DG}	35	Vdc
Gate Current	I_G	10	mAdc
Power Dissipation $T_A = +25^0C$ (1)	P_T	300	mWdc
Operating Junction & Storage Temperature Range	T_{op}, T_{stg}	-65 to +200	^0C

(1) Derate linearly 1.7 mW/^{0}C for $T_A > +25^0C$.



TO-72*
(TO-206AF)

*See appendix A for package outline

ELECTRICAL CHARACTERISTICS ($T_A = +25^0C$ unless otherwise noted)

Parameters / Test Conditions	Symbol	Min.	Max.	Units
Gate-Source Breakdown Voltage $V_{DS} = 0$, $I_G = 1.0$ μAdc	$V_{(BR)GSS}$	-35		Vdc
Gate Reverse Current $V_{DS} = 0$, $V_{GS} = 20$ Vdc	I_{GSS}		-0.1	ηAdc
Drain Current $V_{DS} = 15$ Vdc	I_{DSS}	5	15	mAdc
Gate-Source Voltage $V_{DS} = 15$ Vdc, $I_D = 0.5$ mAdc	V_{GS}	-1	-5.5	Vdc
Gate-Source Cutoff Voltage $V_{DS} = 15$ Vdc, $I_D = 1.0$ ηAdc	$V_{GS(off)}$	-2.5	-6.0	Vdc
Gate-Source Forward Voltage $V_{DS} = 0$ Vdc, $I_G = 1.0$ mAdc	V_{GSF}		1	Vdc

ELECTRICAL CHARACTERISTICS (T_A = +25^{0}C unless otherwise noted) (con't)

Parameters / Test Conditions	Symbol	Min.	Max.	Units
Magnitude of Small-Signal Common Source, Short-Circuit Forward Transfer Admittance (2) V_{GS} = 0, V_{DS} = 15 Vdc, f = 1.0 kHz	$\|y_{fs}\|^2$	4.5	7.5	ms
Small-Signal, Common-Source Short-Circuit Input Capacitance V_{GS} = 0, V_{DS} = 15 Vdc, 100 kHz ≤ f ≤ 1.0 MHz	C_{iss}		4.0	pF
Small-Signal, Common-Source Short-Circuit Reverse Transfer Capacitance V_{DS} = 15 Vdc, V_{GS} = 0, 100 kHz ≤ f ≤ 1.0 MHz	C_{rss}		0.8	pF
Small-Signal, Common-Source Short-Circuit Output Capacitance V_{DS} = 15 Vdc, V_{GS} = 0, 100 kHz ≤ f ≤ 1.0 MHz	C_{oss}		2.0	pF

(2) Pulse Width = 100ms; Duty Cycle = 10%