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TECHNICAL DATA SHEET

N-CHANNEL J-FET Equivalent To MIL-PRF-19500/428

DEVICES

2N4416A

LEVELS

MQ = JAN Equivalent
MX = JANTX Equivalent
MV = JANTXV Equivalent

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

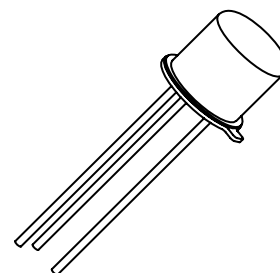
Parameters / Test Conditions	Symbol	Value	Unit
Gate-Source Voltage	V_{GS}	-35	Vdc
Drain-Source Voltage	V_{DS}	35	Vdc
Drain-Gate Voltage	V_{DG}	35	Vdc
Gate Current	I_G	10	mAdc
Power Dissipation $T_A = +25^\circ\text{C}^{(1)}$	P_T	300	mWdc
Operating Junction & Storage Temperature Range	T_j, T_{stg}	-65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

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

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

Parameters / Test Conditions	Symbol	Min.	Max.	Unit
Gate-Source Breakdown Voltage $V_{DS} = 0, I_G = 1.0\mu\text{A}$ dc	$V_{(BR)GSS}$	-35		Vdc
Gate Reverse Current $V_{DS} = 0, V_{GS} = 20\text{V}$ dc	I_{GSS}		-0.1	ηAdc
Drain Current $V_{DS} = 15\text{V}$ dc	I_{DSS}	5	15	mAdc
Gate-Source Voltage $V_{DS} = 15\text{V}, I_D = 0.5\text{mA}$ dc	V_{GS}	-1	-5.5	Vdc
Gate-Source Cutoff Voltage $V_{DS} = 15\text{V}, I_D = 1.0\eta\text{A}$ dc	$V_{GS(off)}$	-2.5	-6.0	Vdc
Gate-Source Forward Voltage $V_{DS} = 0\text{V}, I_G = 1.0\text{mA}$ dc	V_{GSF}		1	Vdc
Magnitude of Small-Signal, Common-Source Short-Circuit Forward Transfer Admittance ⁽²⁾ $V_{GS} = 0, V_{DS} = 15\text{V}$ dc, $f = 1.0\text{kHz}$	$ y_{fs} ^{(2)}$	4.5	7.5	ms
Small-Signal, Common-Source Short-Circuit Input Capacitance $V_{GS} = 0, V_{DS} = 15\text{V}$ dc, $100\text{kHz} \leq f \leq 1.0\text{MHz}$	C_{iss}		4.0	pF
Small-Signal, Common-Source Short-Circuit Reverse Transfer Capacitance $V_{DS} = 15\text{V}$ dc, $V_{GS} = 0, 100\text{kHz} \leq f \leq 1.0\text{MHz}$	C_{rss}		0.8	pF
Small-Signal, Common-Source Short-Circuit Output Capacitance $V_{DS} = 15\text{V}$ dc, $V_{GS} = 0, 100\text{kHz} \leq f \leq 1.0\text{MHz}$	C_{oss}		2.0	pF

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



**TO-72
(TO-206AF)**