



**ABSOLUTE MAXIMUM RATINGS (Note 1)**

**Maximum Temperatures**

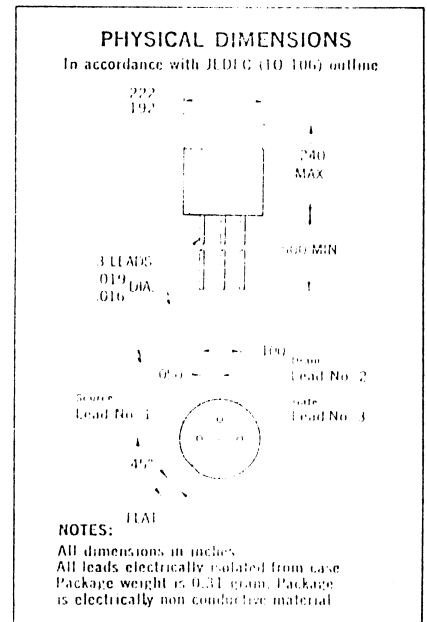
Operating Junction Temperature	125°C
Storage Temperature	-55°C to +125°C
Soldering Temperature (10 second time limit)	260°C

**Maximum Power Dissipation**

Total Dissipation at 25°C Ambient Temperature (Note 2)	0.2 Watt
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**Maximum Voltages**

$V_{GS}$ Source to Gate Voltage	25 Volts
$V_{DS}$ Drain to Source Voltage	25 Volts
$V_{DG}$ Drain to Gate Voltage	25 Volts
$I_G$ Gate Current	50 mA



**ELECTRICAL CHARACTERISTICS (25°C Free Air Temperature unless otherwise noted)**

SYMBOL	CHARACTERISTICS	MIN.	TYP.	MAX.	UNITS	TEST CONDITIONS
$Y_{fs}$	Forward Transadmittance (f = 1.0 kHz)	2,000	6,000	9,000	$\mu$ mhos	$V_{DS} = 15$ V, $V_{GS} = 0$
$Re(f_{fs})$	Forward Transconductance (f = 1.0 MHz)	1,800	5,500		$\mu$ mhos	$V_{DS} = 15$ V, $V_{GS} = 0$
$e_n$	Equivalent Input Noise Voltage (f = 1.0 kHz, BW = 150 Hz)		12	50	nV/√Hz	$V_{DS} = 15$ V, $I_D = 1.0$ mA
NF	Noise Figure (f = 1.0 kHz, $R_G = 150$ k $\Omega$ , BW = 150 Hz)			3.0	dB	$V_{DS} = 15$ V, $I_D = 1.0$ mA
NF	Noise Figure (f = 1.0 kHz, $R_G = 1.0$ M $\Omega$ , BW = 150 Hz)		<0.1		dB	$V_{DS} = 15$ V, $I_D = 1.0$ mA
$r_{ds(on)}$	Drain "On" Resistance (f = 1.0 kHz)		125	500	ohms	$V_{GS} = 0$ , $I_D = 0$
$I_{DSS}$	Drain Current	1.0	14	40	mA	$V_{DS} = 15$ V, $V_{GS} = 0$
$V_{GS(off)}$	Gate to Source Cutoff Voltage	-0.4	-3.7	-8.0	Volts	$V_{DS} = 15$ V, $I_D = 1.0$ $\mu$ A
$V_{GS}$	Gate to Source Voltage		-3.5	-7.5	Volts	$V_{DS} = 15$ V, $I_D = 100$ $\mu$ A
$I_{GSS}$	Gate Reverse Current		0.1	10	nA	$V_{GS} = -15$ V, $V_{DS} = 0$
$I_{GSS}(85^\circ\text{C})$	Gate Reverse Current		0.03	0.6	$\mu$ A	$V_{GS} = -15$ V, $V_{DS} = 0$
$C_{rss}$	Reverse Transfer Capacitance (f = 1.0 MHz)		1.3	3.0	pF	$V_{DS} = 15$ V, $V_{GS} = 0$
$C_{iss}$	Input Capacitance (f = 1.0 MHz)		8.7	12	pF	$V_{DS} = 15$ V, $V_{GS} = 0$
$Y_{os}$	Output Admittance (f = 1.0 kHz)		60	200	$\mu$ mhos	$V_{DS} = 15$ V, $V_{GS} = 0$
$BV_{GSS}$	Gate to Source Breakdown Voltage	-25			Volts	$V_{DS} = 0$ , $I_D = 10$ $\mu$ A

**NOTES:**

- These ratings are limiting values above which the serviceability of any individual semiconductor device may be impaired.
- These ratings give a maximum junction temperature of 125°C and junction to ambient thermal resistance of 500°C/Watt (derating factor of 2.0 mW/°C).