



HIGH VOLTAGE N CHANNEL JFET

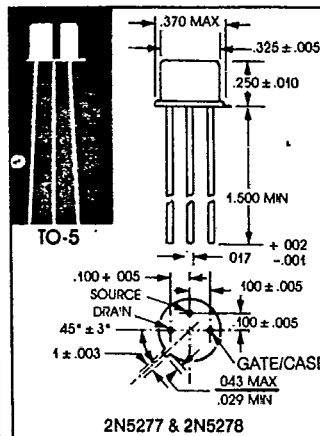
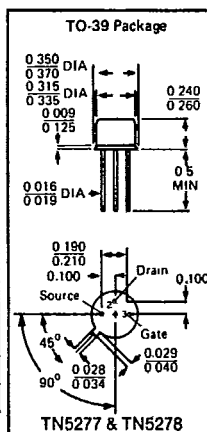
2N5277
2N5278
TN5277
TN5278

GEOMETRY 1143

- High BV_{DGO} 300V - Selections to 400V.
- High Transconductance - to 6mmho

MAXIMUM RATINGS

PARAMETER	2N5277 2N5278	TN5277 TN5278	UNITS
Gate Source Voltage	150	150	V
Gate Drain Voltage	200	150	V
Drain Source Voltage		150	V
Gate Current	10	10	mA
Device Dissipation @25°C	0.8	1	W
Linear Derating Factor	4.57	5.71	mW/°C
Storage Range	-55° to 20°C	-65° to +200°C	



ELECTRICAL CHARACTERISTICS AT 25°C FREE-AIR TEMPERATURE

PARAMETER	SYMBOL	TEST CONDITION	2N5277		2N5278		TN5277		TN5278		UNIT
			MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	
Gate Reverse Current	I _{GSS}	V _{GS} = -75V, V _{DS} = 0		5		5		5		5	nA
		V _G = -75V, V _{DS} = 0, T _A = 150°C		5		5		5		5	μA
Gate Source Breakdown Voltage	BV _{GSS}	I _G = 1.0μA, V _{DS} = 0	150		150						V
Gate Source Breakdown Voltage	BV _{GSO}	V _{DS} = 0, I _G = 11μA					150		150		V
Drain Gate Breakdown Voltage	BV _{DGO}	I _G = -1μA, I _S = 0 (see note)					300		300		V
Saturation Drain Current*	I _{DSS}	V _{DS} = 30V, V _{GS} = 0	2.5	12.5	10	25	2.5	12.5	10	25	mA
Gate Source Cutoff Voltage	V _{GS} (off)	V _{DS} = 30V, I _D = 10nA	.5	7	2	10	.5	7	2	10	V
Forward Transconductance	g _{fs}	V _{DS} = 30V, V _{GS} = 0, f = 1kHz	2	5	3	6	2	5	3	6	mmho
Output Conductance	g _{os}	V _{DS} = 30V, V _{GS} = 0, f = 1kHz		25		60		25		60	μmho
Input Capacitance	C _{iss}	V _{DS} = 30V, V _{GS} = 0, f = 1MHz		25		25		30		30	pF
Feedback Capacitance	C _{rss}	V _{DS} = 30V, V _{GS} = 0, f = 1MHz		5		5		5		5	pF
NOISE FIGURE	NF	V _{DS} = 30V, V _{GS} = 0V, f = 1kHz, BW = 200Hz, R _G = 1MΩ		3		3		3		3	dB

*Pulse test required, pulse width 300μs; duty cycle ≤3%

Note - Special selection available up to 400 V



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