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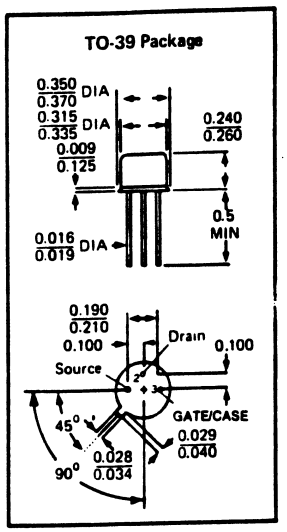
HIGH VOLTAGE
SILICON EPITAXIAL JUNCTION
N-CHANNEL FIELD EFFECT TRANSISTORS

2N6449
2N6450

- HIGH BV_{GSS} . . . 300V MIN (2N6449)
- HIGH POWER RATING . . . 5W



ELECTRICAL DATA ABSOLUTE MAXIMUM RATINGS

PARAMETER	SYMBOL	2N6449	2N6450	UNITS
Drain to Gate Voltage	BV_{DGO}	300	200	Volts
Gate to Source Voltage	BV_{GSO}	-300	-200	Volts
Power Dissipation (25°C case)	P_{DC}	5		W
Derating Factor (Junction to Case)	D_{FC}	3.33		mW/°C
Power Dissipation (free air)	P_{DA}	800		mW
Derating Factor (free air)	D_{FA}	5.33		mW/°C
Junction Temp. (Oper. & Store)	T_J	-65 to 200		°C
Lead Temp. (1/16" From Case 10 sec)	T_L	300		°C
Continuous Forward Gate Current	I_{GF}	10		mA

ELECTRICAL CHARACTERISTICS: T_A = 25°C (UNLESS OTHERWISE STATED)

PARAMETERS AND CONDITIONS	SYMBOL	2N6449			2N6450			UNITS
		Min.	Typ.	Max.	Min.	Typ.	Max.	
Gate Leakage Current V_{GS} = -150V, V_{DS} = 0	I_{GSS}		-1	-10				nA
Gate Leakage Current V_{GS} = -150V, V_{DS} = 0, T_A = 150°C	I_{GSS}		-1	-10				µA
Gate Leakage Current V_{GS} = -100V, V_{DS} = 0	I_{GSS}		-1			-1	-10	nA
Gate Leakage Current V_{GS} = -100V, V_{DS} = 0, T_A = 150°C	I_{GSS}		-1			-1	-10	µA
Gate Breakdown Voltage I_G = -10µA, V_{DS} = 0	BV_{GSS}	-300			-200			V
Pinch-Off Voltage V_{DS} = 30V, I_D = 4nA	V_{PO}	-2		-15			-15	V
Zero Bias Drain Current V_{DS} = 30V, V_{GS} = 0	I_{DSS}[1]	2		10	2		10	mA
Forward Transfer Admittance V_{DS} = 30V, V_{GS} = 0, f = 1 kHz	Y_{fs}[2]	500		3000	500		3000	µmho
Output Admittance V_{DS} = 30V, V_{GS} = 0, f = 1 kHz	Y_{os}[2]			100			100	µmho
Input Capacitance V_{DS} = 30V, V_{GS} = 0, f = 1 kHz	C_{iss}[2]			10			10	pf
Reverse Xfer Cap. V_{DS} = 30V, V_{GS} = 0, f = 1 kHz	C_{rss}[2]			5			5	pf

NOTES: 1. Measured using pulse techniques, t_w = 300µs, duty cycle<2%.
2. Measured with bias conditions applied for less than 5 seconds.

Quality Semi-Conductors