

MOS FIELD-EFFECT TRANSISTOR

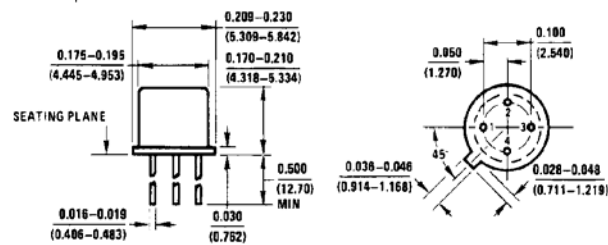
DESCRIPTION:

The **ASI 40822** is a N-Channel Dual-Gate Depletion Type Transistor With Monolithic Gate Protection Diodes, used in RF, IF Amplifier and Mixer Applications up to 150 MHz.

MAXIMUM RATINGS

I_D	50 mA
V_D	24 V
P_{DISS}	330 mW @ $T_A = 25^\circ\text{C}$
T_J	-65°C to $+175^\circ\text{C}$
T_{STG}	-65°C to $+175^\circ\text{C}$

PACKAGE STYLE TO-72



1 = Drain 2 = Gate #2
 3 = Gate #1 4 = Source, Case, and Substrate

CHARACTERISTICS $T_A = 25^\circ\text{C}$

SYMBOL	TEST CONDITIONS	MINIMUM	TYPICAL	MAXIMUM	UNITS
$V_{G1S(OFF)}$	$V_{DS} = 15\text{ V}$ $V_{G2S} = 4.0\text{ V}$ $I_D = 50\text{ }\mu\text{A}$		-2.0	-4.0	V
$V_{G2S(OFF)}$	$V_{DS} = 15\text{ V}$ $V_{G1S} = 0\text{ V}$ $I_D = 50\text{ }\mu\text{A}$		-2.0	-4.0	V
I_{G1SSF}	$V_{G1S} = 6.0\text{ V}$ $V_{G2S} = V_{DS} = 0\text{ V}$			50	μA
I_{G1SSR}	$V_{G1S} = -6.0\text{ V}$ $V_{G2S} = V_{DS} = 0\text{ V}$			50	μA
I_{G2SSF}	$V_{G2S} = 6.0\text{ V}$ $V_{G1S} = V_{DS} = 0\text{ V}$			50	μA
I_{G2SSR}	$V_{G2S} = -6.0\text{ V}$ $V_{G1S} = V_{DS} = 0\text{ V}$			50	μA
I_{DS}	$V_{DS} = 15\text{ V}$ $V_{G1S} = 0\text{ V}$ $V_{G2S} = 4.0\text{ V}$	5.0	15	30	mA
$V_{(BR)G1}$	$I_{G1} = \pm 100\text{ }\mu\text{A}$		9.0		V
$V_{(BR)G2}$	$I_{G2} = \pm 100\text{ }\mu\text{A}$		9.0		V
g_{fs}	$V_{DS} = 15\text{ V}$ $V_{G2S} = 4.0\text{ V}$ $I_D = 10\text{ mA}$ $f = 1.0\text{ KHZ}$		12000		μmho
C_{rss} C_{iss} C_{oss}	$V_{DS} = 15\text{ V}$ $V_{G2S} = 4.0\text{ V}$ $I_D = 10\text{ mA}$ $f = 1.0\text{ MHZ}$	0.005	6.5 2.0	0.03 9.5	pF
G_{PS} NF	$V_{DS} = 15\text{ V}$ $V_{G2S} = 4.0\text{ V}$ $I_D = 10\text{ mA}$ $f = 200\text{ MHZ}$	19	24 2.0	3.5	dB