INTERSIL

2N5460-2N5465
P-Channel JFET

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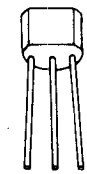
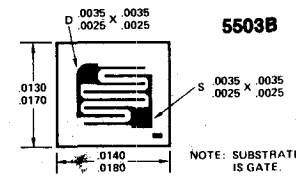
PIN CONFIGURATION
TO-92



CHIP TOPOGRAPHY



ORDERING INFORMATION

TO-92	WAFER	DICE
2N5460	2N5460/W	2N5460/D
2N5461	2N5461/W	2N5461/D
2N5462	2N5462/W	2N5462/D
2N5463	2N5463/W	2N5463/D
2N5464	2N5464/W	2N5464/D
2N5465	2N5465/W	2N5465/D

MAXIMUM RATINGS

RATING	SYMBOL	2N5460 2N5461 2N5462	2N5463 2N5464 2N5465	UNITS
Drain-Gate Voltage	V_{DG}	40	60	Vdc
Reverse Gate-Source Voltage	$V_{GS(r)}$	40	60	Vdc
Forward Gate Current	$I_{G(f)}$	10		mAdc
Total Device Dissipation @ $T_A = 25°C$	P_D	310		mW
Derate above 25°C		2.82		mW/°C
Storage Temperature Range	T_{stg}	−65 to +150		°C
Operating Junction Temperature Range	T_J	−65 to +135		°C

ELECTRICAL CHARACTERISTICS (25°C unless otherwise noted)

PARAMETER		MIN	TYP	MAX	UNITS	TEST CONDITIONS	
$V_{(BR)GSS}$	Gate-Source Breakdown Voltage	40 60			Vdc	$I_G = 10\ \mu Adc$, $V_{DS} = 0$	2N5460, 2N5461, 2N5462 2N5463, 2N5464, 2N5465
$V_{GS(off)}$	Gate-Source Cutoff Voltage	0.75 1.0 1.8		6.0 7.5 9.0	Vdc	$V_{DS} = 15$ Vdc, $I_D = 1.0\ \mu Adc$	2N5460, 2N5463 2N5461, 2N5464 2N5462, 2N5465
I_{GSS}	Gate Reverse Current			5.0 5.0 1.0 1.0	na na μAdc na	$V_{GS} = 20$ Vdc, $V_{DS} = 0$ $V_{GS} = 30$ Vdc, $V_{DS} = 0$ $V_{GS} = 20$ Vdc, $V_{DS} = 0$, $T_A = 100°C$ $V_{GS} = 30$ Vdc, $V_{DS} = 0$, $T_A = 100°C$	2N5460, 2N5461, 2N5462 2N5463, 2N5464, 2N5465 2N5460, 2N5461, 2N5462 2N5463, 2N5464, 2N5465
ON CHARACTERISTICS							
I_{DSS}	Zero-Gate Voltage Drain Current	1.0 2.0 4.0		5.0 9.0 16	mAdc	$V_{DS} = 15$ Vdc, $V_{GS} = 0$	2N5460, 2N5463 2N5461, 2N5464 2N5462, 2N5465
V_{GS}	Gate-Source Voltage	0.5 0.8 1.5		4.0 4.5 6.0	Vdc	$V_{DS} = 15$ Vdc, $I_D = 0.1$ mAdc $V_{DS} = 15$ Vdc, $I_D = 0.2$ mAdc $V_{DS} = 15$ Vdc, $I_D = 0.4$ mAdc	2N5460, 2N5463 2N5461, 2N5464 2N5462, 2N5465
SMALL-SIGNAL CHARACTERISTICS							
g_{fs}	Forward Transadmittance	1000 1500 2000		4000 5000 6000	μmhos	$V_{DS} = 15$ Vdc, $V_{GS} = 0$, f = 1.0 kHz	2N5460, 2N5463 2N5461, 2N5464 2N5462, 2N5465
g_{os}	Output Admittance			75	μmhos	$V_{DS} = 15$ Vdc, $V_{GS} = 0$, f = 1.0 kHz	
C_{iss}	Input Capacitance		5.0	7	pF	$V_{DS} = 15$ Vdc, $V_{GS} = 0$, f = 1.0 MHz	
C_{rss}	Reverse Transfer Capacitance		1.0	2.0	pF	$V_{DS} = 15$ Vdc, $V_{GS} = 0$, f = 1.0 MHz	
NF	Common-Source Noise Figure		1.0	2.5	dB	$V_{DS} = 15$ Vdc, $V_{GS} = 0$, $R_G = 1.0$ Megohm, f = 100 Hz, BW = 1.0 Hz	
$\bar{e}_n$	Equivalent Short-Circuit Input Noise Voltage		60	115	$nV/\sqrt{Hz}$	$V_{DS} = 15$ Vdc, $V_{GS} = 0$, f = 100 Hz, BW = 1.0 Hz	