Siliconix
incorporated

N-CHANNEL JUNCTION & MOS FIELD-EFFECT TRANSISTORS

Supplement to Short-Form Catalog (March 1965)

All Siliconix JEDEC registered FETs are symbolized with a five-digit numbe
to provide lot identification. TO-18 package except where noted.

1140 West Evelyn Avenue, Sunnyvale, California 94086 · Telephone (408) 245-1000 · TWX 408-737-9948

CHARACTERISTICS AT 25°C

	I_{GSS} (nA) Max	BV_{DGO} (V) Min	V_P (V) Max	$I_{D(OFF)}$ (nA) Max	I_{DSS} (mA) Min Max	g_{fs} (μmho) Min Max	C_{iss} (pF) Max	NF (db) Typ
Test Conditions	$V_{GS} = -30$ V, $V_{DS} = 0$	$I_D = 1$ μA, $I_S = 0$	$V_{DS} = 30$ V, $I_D = 1$ μA	$V_{DS} = 30$ V, $V_{GS} = (\ )$ V	$V_{DS} = (\ )$ V, $V_{GS} = 0$	$V_{DS} = (\ )$ V, $V_{GS} = 0$, f = 1 kHz	$V_{GS} = 0$, $V_{DS} = (\ )$ V, f = 1 MHz	f = 1 kHz, BW = 200 Hz, R_{gen} = 1 MΩ
2N3066	−1	50	−9.5	0.5 (−10)	0.8 4 (30)	400 1000 (30)	10 (12)	3
2N3067	−1	50	−4.5	0.5 (−5)	0.2 1 (30)	300 1000 (30)	10 (8)	3
2N3068	−1	50	−2.2	0.5 (−2.5)	0.05 0.25 (30)	200 1000 (30)	10 (5)	3
2N3069	−1	50	−9.5	0.5 (−10)	2 10 (30)	1000 2500 (30)	15 (12)	3
2N3070	−1	50	−4.5	0.5 (−5)	0.5 2.5 (30)	750 2500 (30)	15 (8)	3
2N3071	−1	50	−2.2	0.5 (−2.5)	0.1 0.6 (30)	500 2500 (30)	15 (5)	3
			$V_{DS} = 20$ V	$V_{DS} = 20$ V				
2N3365	−5	40	−11.5	5 (−12)	0.8 4 (30)	400 2000 (30)	15 (8)	
2N3366	−5	40	−6.5	5 (−7)	0.2 1 (30)	250 1000 (30)	15 (8)	
2N3367	−5	40	−2.2	5 (−2.5)	0.05 0.25 (30)	100 1000 (30)	15 (8)	
2N3368	−5	40	−11.5	5 (−12)	2 12 (30)	1000 4000 (30)	20 (8)	
2N3369	−5	40	−6.5	5 (−7)	0.5 2.5 (30)	600 2500 (30)	20 (8)	
2N3370	−5	40	−3.2	5 (−3.5)	0.1 0.6 (30)	300 2500 (30)	20 (8)	
								f = (\ ) Hz, BW = 6 Hz
2N3436	−0.5	50	−9.8	1 (−10)	3 15 (20)	2500 10,000 (20)	18 (10)	2 (1k)
2N3437	−0.5	50	−4.8	1 (−5)	0.8 4 (20)	1500 6000 (20)	18 (6)	2 (1k)
2N3438	−0.5	50	−2.3	1 (−2.5)	0.2 1 (20)	800 4500 (20)	18 (4)	2 (1k)
2N3452*	−0.1	50	−9.8	0.5 (−10)	0.8 4 (30)	200 1200 (30)	6 (12)	2 (100)
2N3453*	−0.1	50	−4.8	0.5 (−5)	0.2 1 (30)	150 900 (30)	6 (8)	2 (100)
2N3454*	−0.1	50	−2.3	0.5 (−2.5)	0.05 0.25 (30)	100 600 (30)	6 (12)	2 (100)
2N3455*	−0.04	50	−9.8	0.5 (−10)	0.8 4 (30)	400 1200 (30)	5 (12)	4 (20)
2N3456*	−0.04	50	−4.8	0.5 (−5)	0.2 1 (30)	300 900 (30)	5 (8)	4 (20)
2N3457*	−0.04	50	−2.3	0.5 (−2.5)	0.05 0.25 (30)	150 600 (30)	5 (4)	4 (20)
2N3458	−0.25	50	−7.8	1 (−8)	3 15 (20)	2500 10,000 (20)	18 (10)	6 (20)
2N3459	−0.25	50	−3.4	1 (−4)	0.8 4 (20)	1500 6000 (20)	18 (6)	4 (20)
2N3460	−0.25	50	−1.8	1 (−2)	0.2 1 (20)	800 4500 (20)	18 (4)	4 (20)
		BV_{GSS} (V)						
		$I_G = -1$ μA, $V_{DS} = 0$	$V_{DS} = 15$ V, $I_D = 0.5$ nA					BW = 5 Hz
2N3821*	−0.1	−50	−4		0.5 2.5 (15)	1500 4500 (15)	6 (15)	5 (10)
2N3822*	−0.1	−50	−6		2 10 (15)	3000 6500 (15)	6 (15)	5 (10)
	$V_{GS} = -20$ V							R_{gen} = 1 KΩ
2N3823*	−0.5	−30	−8		4 20 (15)	3500 6500 (15)	6 (15)	2.5 (100M)
						r_{ds} (Ω) Max		
	$V_{GS} = -30$ V			$V_{DS} = 15$ V		$V_{GS} = 0$, $I_D = 0$		
2N3824*	−0.1	−50		0.1 (−8)		250	6 (15)	
						g_{fs} (μmho)		
	$V_{GS} = -20$ V		$V_{DS} = 10$ V, $I_D = 1$ nA			$V_{DS} = (\ )$ V, $V_{GS} = 0$, f = 1 kHz	f = 1 kHz	
2N4117*	−0.01	−40	−1.8		0.03 0.09 (10)	70 210 (10)	3 (10)	
2N4118*	−0.01	−40	−3		0.08 0.24 (10)	80 250 (10)	3 (10)	
2N4119*	−0.01	−40	−6		0.2 0.6 (10)	100 330 (10)	3 (10)	
	$V_{GS} = -15$ V		$V_{DS} = 15$ V, $I_D = 2$ nA				f = 1 MHz	
U183*	−2	−25	−8		2 20 (15)	2000 6500 (15)	8 (15)	
	I_{DGO} (nA) Max					r_{ds} (Ω) Max		$t_{on} + t_{off}$ (nsec) Max
	$V_{DG} = 20$ V, $I_S = 0$		$V_{DS} = 20$ V, $I_D = 1$ nA			$I_D = 1$ mA, $V_{GS} = 0$		$I_{D(ON)} = (\ )$ mA
U182	−0.25	−40	−10	0.25 (−12)	40 120 (20)	40	20 (20)	50 (20)
2N3971	−0.25	−40	−5	0.25 (−12)	25 75 (20)	60	25 (20)	90 (10)
2N3972	−0.25	−40	−3	0.25 (−12)	5 30 (20)	100	25 (20)	180 (5)

TYPE B NORMALLY "ON" MOS FETs

CHARACTERISTICS AT 25°C

	r_{GS} (Ω) Min	r_{ds} (Ω) Typ	BV_{DSX} (V) Min	V_P (V) Max	$I_{D(OFF)}$ (nA) Max	I_{DSS} (mA) Min Max	g_{fs} (μmho) Min Max	C_{iss} (pF) Max
Test Conditions	$V_{DS} = 10$ V, $I_D = 0.15$ mA; $V_{GS} = -30$ V, $V_{DS} = 0$	$V_{DS} = 0$, $V_{GS} = 10$ V	$I_D = 1$ μA, $V_{GS} = -10$ V	$V_{DS} = 10$ V, $I_D = 1$ μA	$V_{DS} = 5$ V, $V_{GS} = -10$ V	$V_{DS} = 10$ V, $V_{GS} = 0$	$V_{DS} = 10$ V, $V_{GS} = 0$, f = 1 kHz	$V_{DS} = (\ )$ V, $V_{GS} = 0$, f = 140 kHz
2N3631	10^{15}	100	20	−6	0.1	2 10	1400 2800	7.5 (10)
M100	10^{13}	150	20	−5	1	1.5 4.5	1000 2200	7.5 (0)
M101	10^{13}	100	20	−8	1	4 12	1500 3300	7.5 (0)

* TO-72

Printed in U.S.A. 4/10/66

EVALUATE SI N-CHANNEL FETS WITH DESIGNER'S KIT DK4—8 Junction and 1 MOS