

# N-Channel Junction Field Effect Transistors

## GENERAL PURPOSE

TYPE NO.	CASE	MAXIMUM RATINGS		I <sub>DSS</sub> (mA)		Y <sub>fs</sub> (mmhos)		V <sub>GS(off)</sub> (V)		C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)	NF (dB)
		P <sub>d</sub> (mW)	BV <sub>GSS</sub> (V)	min	max	min	max	min	max	max	max	max
BC 264A	TO-92DE	300	30	2	4.5	2.5	—	0.5	8	4+	1.2+	2
BC 264B	TO-92DE	300	30	3.5	6.5	3	—	0.5	8	4+	1.2+	2
BC 264C	TO-92DE	300	30	5	8	3.5	—	0.5	8	4+	1.2+	2
BC 264D	TO-92DE	300	30	7	12	4	—	0.5	8	4+	1.2+	2
BF 246A	TO-92DA	250	25	30	80	8	17	0.6	14.5	11+	3.5+	—
BF 246B	TO-92DA	250	25	60	140	8	17	0.6	14.5	11+	3.5+	—
BF 246C	TO-92DA	250	25	110	250	8	17	0.6	14.5	11+	3.5+	—
BF 247A	TO-92DE	250	25	30	80	8	17	0.6	14.5	11+	3.5+	—
BF 247B	TO-92DE	250	25	60	140	8	17	0.6	14.5	11+	3.5+	—
BF 247C	TO-92DE	250	25	110	250	8	17	0.6	14.5	11+	3.5+	—
2N 3684	TO-72	300	50	2.5	7.5	2	3	2	5	4	1.2	0.5
2N 3684A	TO-72	300	50	2.5	7.5	—	—	2	5	4	1.2	0.5
2N 3685	TO-72	300	50	1	3	1.5	2.5	1	3.5	4	1.2	0.5
2N 3685A	TO-72	300	50	1	3	—	—	1	3.5	4	1.2	0.5
2N 3686	TO-72	300	50	0.4	1.2	1	2	0.6	2	4	1.2	0.5
2N 3686A	TO-72	300	50	0.4	1.2	—	—	0.6	2	4	1.2	0.5
2N 3687	TO-72	300	50	0.1	0.5	0.5	1.5	0.3	1.2	4	1.2	0.5
2N 3687A	TO-72	300	50	0.1	0.5	—	—	0.3	1.2	4	1.2	0.5
2N 3967	TO-72	300	30	2.5	10	2.5	—	2	5	5	1.3	1.5
2N 3967A	TO-72	300	30	2.5	10	2.5	—	2	5	5	1.3	1.5
2N 3968	TO-72	300	30	1	5	2	—	—	3	5	1.3	1.5
2N 3968A	TO-72	300	30	1	5	2	—	—	3	5	1.3	1.5
2N 3969	TO-72	300	30	0.4	2	1.3	—	—	1.7	5	1.3	1.5
2N 3969A	TO-72	300	30	0.4	2	1.3	—	—	1.7	5	1.3	1.5
2N 4220	TO-72DI	300	30	0.5	3	1	4	—	4	6	2	2.5
2N 4221	TO-72DI	300	30	2	6	2	5	—	6	6	2	2.5
2N 4222	TO-72DI	300	30	5	15	2.5	6	—	8	6	2	2.5
2N 4302	TO-106	300	30	0.5	5	1	—	—	4	6	3	2.5
2N 4303	TO-106	300	30	4	10	2	—	—	6	6	3	2.5
2N 4304	TO-106	300	30	0.5	15	1	—	—	10	6	3	2.5
2N 4338	TO-18	300	50	0.2	0.6	0.6	1.8	0.3	1	7	3	1
2N 4339	TO-18	300	50	0.5	1.5	0.8	2.4	0.6	1.8	7	3	1
2N 4340	TO-18	300	50	1.2	3.6	1.3	3	1	3	7	3	1
2N 4341	TO-18	300	50	3	9	2	4	2	6	7	3	1
2N 5103	TO-72	300	25	1	8	2	8	0.5	4	5	1	—
2N 5104	TO-72	300	25	2	6	3.5	7.5	0.5	4	5	1	—
2N 5163	TO-106	200	25	1	40	2	9	0.4	8	12	3	—
2N 5457	TO-92DD	310	25	1	5	1	5	0.5	6	7	3	—
2N 5458	TO-92DD	310	25	2	9	1.5	5.5	1	7	7	3	—
2N 5459	TO-92DD	310	25	4	16	2	6	2	8	7	3	—
2N 5556	TO-72	300	30	0.5	2.5	1.5	6.5	0.2	4	6	3	1
2N 5557	TO-72	300	30	2	5	1.5	6.5	0.8	5	6	3	1
2N 5558	TO-72	300	30	4	10	1.5	6.5	1.5	6	6	3	1
2N 5716	TO-92DD	350	40	0.05	0.25	0.2	1	0.2	3	5	1.5	—
2N 5717	TO-92DD	350	40	0.2	1	0.4	1.6	0.5	5	5	1.5	—
2N 5718	TO-92DD	350	40	0.8	4	0.5	2	1	8	5	1.5	—
2SK 30A-R	TO-92DA	100	50	0.3	0.75	1.2	—	0.4	5	8.2+	2.6+	5
2SK 30A-O	TO-92DA	100	50	0.6	1.4	1.2	—	0.4	5	8.2+	2.6+	5
2SK 30A-Y	TO-92DA	100	50	1.2	3	1.2	—	0.4	5	8.2+	2.6+	5
2SK 30A-GR	TO-92DA	100	50	2.6	6.5	1.2	—	0.4	5	8.2+	2.6+	5
2SK 34	TO-92DA	150	30	0.3	12#	1	—	0.3	6	8+	1.5+	6
2SK 50	TO-92DA	20	10	0.07	1#	—	—	—	—	—	—	—
2SK 66	TO-92DA	100	55	0.3	6.5#	—	—	—	—	8.2+	2.6+	5

# N-Channel Junction Field Effect Transistors

## VHF/UHF AMPLIFIER

TYPE NO.	CASE	MAXIMUM RATINGS		I <sub>DSS</sub> (mA)		Y <sub>fs</sub> (mmhos)		V <sub>GS(off)</sub> (V)		C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)	NF (dB)
		P <sub>d</sub> (mW)	BV <sub>GSS</sub> (V)	min	max	min	max	min	max	max	max	max
BF 244A	TO-92DA	300	30	2	6.5	3	6.5	0.5	8	4	1.6	1.5+
BF 244B	TO-92DA	300	30	6	15	3	6.5	0.5	8	4	1.6	1.5+
BF 244C	TO-92DA	300	30	12	25	3	6.5	0.5	8	4	1.6	1.5+
BF 245A	TO-92DE	300	30	2	6.5	3	6.5	0.5	8	4	1.6	1.5+
BF 245B	TO-92DE	300	30	6	15	3	6.5	0.5	8	4	1.6	1.5+
BF 245C	TO-92DE	300	30	12	25	3	6.5	0.5	8	4	1.6	1.5+
BF 256A	TO-92DE	360	30	3	7	4.5	—	0.5	7.5	4.5	1.2	7.5+
BF 256B	TO-92DE	360	30	6	13	4.5	—	0.5	7.5	4.5	1.2	7.5+
BF 256C	TO-92DE	360	30	11	18	4.5	—	0.5	7.5	4.5	1.2	7.5+
2N 3819	TO-92DA	300	25	2	20	2	6.5	—	8	8	4	—
2N 3823	TO-72DG	300	30	4	20	3.5	6.5	—	8	6	2	2.5
2N 4223	TO-72DI	300	30	3	18	3	7	—	8	6	2	5
2N 4224	TO-72DI	300	30	2	20	2	7.5	—	8	0.8	2	—
2N 4416	TO-72DG	300	30	5	15	4.5	7.5	—	6	4	0.8	4
2N 4416A	TO-72DG	300	35	5	15	4.5	7.5	2.5	6	4	0.8	4
2N 5245	TO-92DE	360	30	5	15	4.5	7.5	1	6	4.5	1	2
2N 5246	TO-92DE	360	30	1.5	7	3	6	0.5	4	4.5	1	2
2N 5247	TO-92DE	360	30	8	24	4.5	8	1.5	8	4.5	1	2
2N 5248	TO-92DA	360	30	4	20	3.5	6.5	1	8	6	2	—
2N 5484	TO-92DD	310	25	1	5	3	6	0.3	3	5	1	3
2N 5485	TO-92DD	310	25	4	10	3.5	7	0.5	4	5	1	2
2N 5486	TO-92DD	310	25	8	20	4	8	2	6	5	1	2
2N 5668	TO-92DD	310	25	1	5	1.5	6.5	0.2	4	7	3	2.5
2N 5669	TO-92DD	310	25	4	10	2	6.5	1	6	7	3	2.5
2N 5670	TO-92DD	310	25	8	20	3	7.5	2	8	7	3	2.5
2SK 19-Y	TO-92DD	200	18	3	7	7+	—	1.2	—	—	0.65	3.5
2SK 19-GR	TO-92DD	200	18	6	14	7+	—	1.2	—	—	0.65	3.5
2SK 19-BL	TO-92DD	200	18	12	24	7+	—	1.2	—	—	0.65	3.5
2SK 33	TO-92DD	150	20	2.5	20#	4.5	—	1	8	—	0.5+	2.5+
2SK 41	TO-92DD	100	18	0.6	24#	7+	—	0.6	5#	—	0.75	3.5
2SK 56	TO-92DE	100	10	0.5	6#	1.9	—	—	2.5	4+	1.5	4.5
2SK 83	TO-92DE	100	25	0.5	12#	1.9	—	—	2.5	4+	0.15	3.5

#Groupings available +Typical value

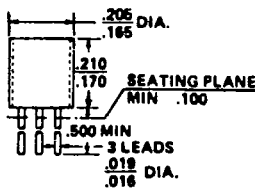
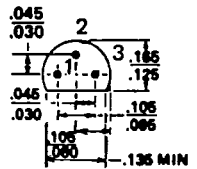
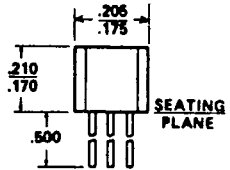
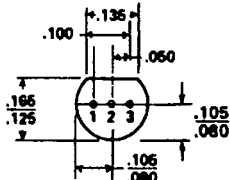
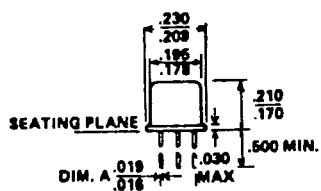
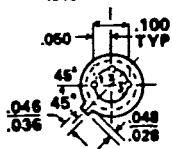
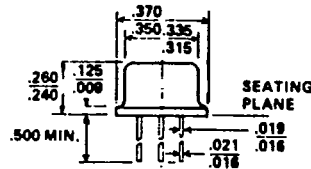
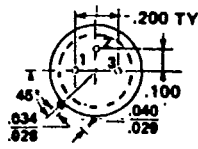
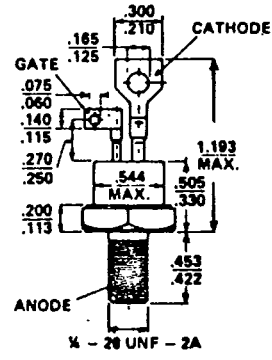
# N-Channel Junction Field Effect Transistors

## SWITCHING/CHOPPER

TYPE NO.	CASE	MAXIMUM RATINGS		I <sub>DSS</sub> (mA)		V <sub>GS(off)</sub> (V)		r <sub>ds(on)</sub> (ohms)	C <sub>iss</sub> (pF)	C <sub>rss</sub> (pF)	t <sub>on</sub> (ns)	t <sub>off</sub> (ns)
		P <sub>d</sub> (mW)	BV <sub>GSS</sub> (V)	min	max	min	max	max	max	max	max	max
2N 3966	TO-72	300	30	2	—	4	6	220	6	1.5	120	100
2N 3970	TO-18	1800▲	40	50	150	4	10	30	25	6	20	30
2N 3971	TO-18	1800▲	40	25	75	2	5	60	25	6	30	60
2N 3972	TO-18	1800▲	40	5	30	0.5	3	100	25	6	80	100
2N 4091	TO-18	1800▲	40	30	—	5	10	30	16	5	25	40
2N 4092	TO-18	1800▲	40	15	—	2	7	50	16	5	35	60
2N 4093	TO-18	1800▲	40	8	—	1	5	80	16	5	60	80
2N 4391	TO-18	1800▲	40	50	150	4	10	30	14	3.5	15	20
2N 4392	TO-18	1800▲	40	25	75	2	5	60	14	3.5	15	35
2N 4393	TO-18	1800▲	40	5	30	0.5	3	100	14	3.5	15	50
2N 4856	TO-18	360	40	50	—	4	10	25	18	8	9	25
2N 4856A	TO-18	360	40	50	—	4	10	25	10	4	8	20
2N 4857	TO-18	360	40	20	100	2	6	40	18	8	10	50
2N 4857A	TO-18	360	40	20	100	2	6	40	10	3.5	10	40
2N 4858	TO-18	360	40	8	80	0.8	4	60	18	8	20	100
2N 4858A	TO-18	360	40	8	80	0.8	4	60	10	3.5	16	80
2N 4859	TO-18	360	30	50	—	4	10	25	18	8	9	25
2N 4859A	TO-18	360	30	50	—	4	10	25	10	4	8	20
2N 4860	TO-18	360	30	20	100	2	6	40	18	8	10	50
2N 4860A	TO-18	360	30	20	100	2	6	40	10	3.5	10	40
2N 4861	TO-18	360	30	8	80	0.8	4	60	18	8	20	100
2N 4861A	TO-18	360	30	8	80	0.8	4	60	10	3.5	16	80
2N 5555	TO-92DD	310	25	15	—	—	—	150	5	1.2	5	15
2N 5638	TO-92DD	310	30	50	—	—	—	30	10	4	9	15
2N 5639	TO-92DD	310	30	25	—	—	—	60	10	4	14	30
2N 5640	TO-92DD	310	30	5	—	—	—	100	10	4	18	45
2N 5653	TO-92DD	310	30	40	—	—	—	50	10	3.5	9	15
2N 5654	TO-92DD	310	30	15	—	—	—	100	10	3.5	14	30

▲ at T<sub>C</sub> = 25°C + Typical value

# Packaging Information

<p><b>PACKAGING INFORMATION</b></p>	<p>1. CATHODE 2. GATE 3. ANODE</p>  	<p><b>SCR</b> 1. CATHODE 2. GATE 3. ANODE</p>  
	<p><b>TO-18 (PLASTIC)</b></p>	<p><b>TO-92</b></p>
<p>1. CATHODE 2. GATE 3. ANODE</p>  	<p><b>SCR</b> 1. CATHODE 2. GATE 3. ANODE</p>  	<p><b>TRIAC</b> 1. MT 1 2. GATE 3. MT 2</p> 
<p><b>TO-18</b></p>	<p><b>TO-39</b></p>	<p><b>TO-48D</b></p>