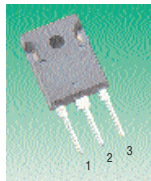


RF MOSFETs — continued

High Power, TO-247
(1 – 15MHz Operation)



- Symmetrical pairs
- Low cost TO-247 package
- Mirror image pin-outs for simplified 'push-pull' topographies
- Very high breakdown for improved ruggedness
- Low thermal resistance
- Nitride passivated die for improved reliability

Characteristics @ 13.56MHz				Max. ratings @ 25°C			C _{iss} (typ.) pF	Pin Out	Mfrs. List No.
V _{DD} V	Gain (min.) dB	Efficiency (typ.) %	P _{out} W	V _{DS} V	I _D A	P _{tot} W			
50	18	63%	125	150	11	167	755	a	ARF440
50	18	63%	125	150	11	167	755	b	ARF441
100	20	65%	200	300	8	167	730	a	ARF442
100	20	65%	200	300	8	167	730	b	ARF443
300	20	80%	300	900	6.5	208	1500	a	ARF444
300	20	80%	300	900	6.5	208	1500	b	ARF445

Mfrs. List No.	Order Code	1+	Price Each	20+	100+
ARF440	740-421				
ARF441	740-433				
ARF442	740-445				
ARF443	740-457				
ARF444	740-469				
ARF445	740-470				

Junction FETs

Philips Semiconductors

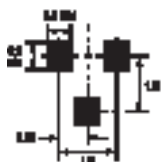
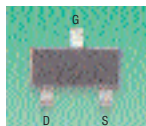
SOT-23



V _{DS} max. V	Channel Polarity	R _{DS(on)} max. (*typ.) Ω	V _{GS(off)} min. max. V V		I _{DSS} min. max. mA mA		C _{iss} max. pF	Device Marking	Mfrs. List No.
25	N	50*	0.2	6.5	24	60	5	M10	PMBFJ310
25	N	—	0.1	1.0	0.2	1.5	5	M3p	BFT46

Mfrs. List No.	Order Code	5+	25+	Price Each	100+	250+	1K+
BFT46	300-0928						
PMBFJ310	316-2849						

SOT-23



V _{DS} max. V	Channel Polarity	R _{DS(on)} max. (*typ.) Ω	V _{GS(off)} min. max. V V		I _{DSS} min. max. mA mA		C _{iss} max. pF	Device Marking	Mfrs. List No.
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Amplifiers										
25	N	—	—	5.0	4.0	10.0	5.0	M1	ON	BFR30LT1
25	N	35*	2.0	6.5	24.0	60.0	5.0	Z0	SLX	SST310
40	N	750*	0.3	1.5	0.2	1.0	4.5	P1	SLX	SST201

Analogue Switches										
35	N	100	—	3.0	2.0	—	12.0	C3	SLX	SST113
35	N	50	1.0	3.0	5.0	—	12.0	C2	SLX	SST112
30	P	300	0.8	2.25	1.5	20.0	20.0	S7	SLX	SST177

Mfrs. List No.	Order Code	5+	25+	Price Each	100+	250+	1K+
BFR30LT1	934-057						
SST112	739-194						
SST113	739-200						
SST177	739-212						
SST201	739-224						
SST310	739-250						

TO-18, TO-72 and TO-92 (see page 358 for pin connection data)

Applications Key:

GPA = General Purpose Amplifier, GPS = General Purpose Switch, HFA = High Frequency Amplifier, HFS = High Frequency Switch, LNA = Low Noise Amplifier, V = Voltage Controlled Attenuators

V _{DS} max. V	I _D (*I _D) max. mA	V _{GS(off)} max. V	I _{DSS} min. mA	I _D max. mA	G _{fs} min. mAV	G _{fs} max. mAV	P _{tot} @ 25°C mW	Package and Pin-Out	App'n Code	Mfrs. List No.
N Channel										
15	10	7.0	—	—	—	—	300	TO-18(b)	V	SLX VCR2N
15	10	7.0	—	—	—	—	300	TO-18(b)	V	SLX VCR4N
25	10	4.5	7.0	20.0	6.0	12.0	360	TO-92(m)	HFA	FCH J211
25	10	8.0	2.0	20.0	2.0	6.5	200	TO-92(p)	GPA	SLX 2N3819
25	10	8.0	2.0	20.0	2.0	6.5	200	TO-92(k)	GPA	FCH 2N3819
25	10	6.0	—	5.0	—	—	310	TO-92(m)	GPA	ON 2N5457
25	10	6.0	—	20.0	—	—	310	TO-92(g)	HFA	ON 2N5486
25	20	6.0	24.0	60.0	10.0	18.0	500	TO-18(b)	HFA	SLX U310
25	50	10.0	80.0	—	—	—	360	TO-92(m)	GPS	SLX J108
25	50	4.0	10.0	—	—	—	360	TO-92(m)	GPS	SLX J110
30	10	8.0	2.0	6.5	3.0	6.5	350	TO-92(k)	HFA	FCH BF244A
30	10	8.0	6.0	15.0	3.0	6.5	350	TO-92(k)	HFA	FCH BF244B
30	10	8.0	2.0	6.5	3.0	6.5	350	TO-92(r)	HFA	FCH BF245A
30	10	8.0	2.0	6.5	3.0	6.5	350	TO-92(q)	HFA	ON BF245A
30	10	8.0	6.0	15.0	3.0	6.5	350	TO-92(r)	HFA	FCH BF245B
30	10	8.0	12.0	25.0	3.0	6.5	350	TO-92(r)	HFA	FCH BF245C
30	10	7.5	3.0	7.0	4.5	—	300	TO-92(m)	HFA	— BF256A
30	10	7.5	3.0	7.0	4.5	—	300	TO-92(r)	HFA	FCH BF256A
30	10	6.0	5.0	15.0	4.5	7.5	360	TO-92(m)	HFA	SLX J304
30	10	6.0	5.0	15.0	4.5	7.5	300	TO-72(e)	HFA	SLX 2N4416
40	50	1.8	0.03	0.09	0.07	0.21	300	TO-72(e)	GPA	SLX 2N4117A
50	50	1.0	0.2	0.6	0.6	1.8	300	TO-18(b)	HFA	SLX 2N4338
P Channel										
20	15	8.0	0.3	15.0	0.8	5.0	360	TO-92(k)	GPA	— 2N3820
30	50	4.0	2.0	35.0	—	—	360	TO-92(k)	GPS	SLX J176
30	50	2.25	1.5	20.0	—	—	360	TO-92(k)	GPS	SLX J177
40	10	7.5	—	9.0	—	—	310	TO-92(k)	LNA	ON 2N5461
40	16	9.0	4.0	16.0	2.0	6.0	310	TO-92(n)	LNA	— 2N5462

Mfrs. List No.	Order Code	5+	25+	Price Each	100+	250+	1K+
BF244A	.518-670						
BF244B	.518-682						
BF245A (FCH)	.518-694						
BF245A (ON)	.352-044						
BF245B	.518-700						
BF245C	.518-712						
BF256A	.352-070 †						
BF256A (FCH)	.519-509						
Order Multiple=1							
J108	.352-111	1+	25+		100+	250+	1K+
J110	.352-123						
J176	.352-172						
J177	.352-184						
J211	.352-202						
J304	.352-226						
U310	.352-251						
VCR2N	.352-275						
VCR4N	.352-287						
2N3819 (FCH)	.434-759						
2N3819 (SLX)	.352-299						
2N3820	.352-305						
2N4117A	.352-330						
2N4338	.352-342						
2N4416	.352-380						
2N5457	.682-366						
Order Multiple=5							
2N5461	.645-953	5+	25+		100+	250+	1K+
2N5462	.352-408						
Order Multiple=1							
2N5486	.645-965	1+	25+		100+	250+	1K+

Dual, TO-71 and TO-78

(see page 358 for pin connection data)

Application Key: HFA = High Frequency Amplifier, LNA = Low Noise Amplifier

V _{DS} max. V	I _D (*I _D) max. mA	V _{GS(off)} max. V	I _{DSS} min. mA	I _D max. mA	G _{fs} min. mAV	G _{fs} max. mAV	V _{DS1} -V _{DS2} max. mV	Package and Pin-Out	App'n Code	Mfrs. List No.
N Channel										
25	10	4.0	12.0	30	10.0	—	—	TO-78(a)	HFA	U430
25	50	5.0	7.0	40	5.0	10	10	TO-78(b)	HFA	2N5912
25	50	6.0	6.0	30	4.5	9	10	TO-71(b)	HFA	U440
50	10	2.5	0.5	10	2.0	7	15	TO-71(b)	LNA	U404

Mfrs. List No.	Order Code	1+	25+	Price Each	100+	250+	1K+
U404	.352-433						
U430	.352-445						
U440	.352-470						
2N5912	.352-410						