

## SOT-23 TRANSISTORS (continued)

### Plastic-Encapsulated Bias Resistor Transistors for General-Purpose Applications

Pinout: 1-Base, 2-Emitter, 3-Collector

Device		Marking		$V_{(BR)CEO}$ Volts (Min)	$h_{FE}@ I_C$		$I_C$ mA Max	$R_1$ Ohm	$R_2$ Ohm
NPN	PNP	NPN	PNP		Min	mA			
<i>MMUN2211LT1</i>	<i>MMUN2111LT1</i>	A8A	A6A	50	35	5.0	100	10K	10K
<i>MMUN2212LT1</i>	<i>MMUN2112LT1</i>	A8B	A6B	50	60	5.0	100	22K	22K
<i>MMUN2213LT1</i>	<i>MMUN2113LT1</i>	A8C	A6C	50	80	5.0	100	47K	47K
<i>MMUN2214LT1</i>	<i>MMUN2114LT1</i>	A8D	A6D	50	80	5.0	100	10K	47K

### Drivers

The following is a listing of small-signal devices intended for medium voltage driver applications at fairly high current levels.

Pinout: 1-Base, 2-Emitter, 3-Collector

Device	Marking	$V_{(BR)CEO}$	$h_{FE}@ I_C$			$f_T$ MHz Min
			Min	Max	mA	
<b>NPN</b>						
<i>MMBTA06LT1</i>	1GM	80	100	—	100	100
BSS64LT1	AM	80	20	—	10	50
<b>PNP</b>						
BSS63LT1	T1	100	30	—	25	50
<i>MMBTA56LT1</i>	2GM	80	100	—	100	50

### RF Transistors

The following table is a listing of small-signal RF transistors intended for low-noise, high-power gain, Class A, AB or C amplifiers. These devices are used as pre-drivers in power amplifier applications.

Pinout: 1-Base, 2-Emitter, 3-Collector

Devices are listed in order of descending  $f_T$ .

Device	Marking	Gain-Bandwidth		NF @ f		Gain @ f		Maximum Ratings		
		$f_T$ Typ GHz	$I_C$ mA	Typ dB	MHz	Typ dB	MHz	$V_{(BR)CEO}$ Volts	$I_C$ mA	$P_T$ mW
<i>MMBR521LT1</i> <sup>(17)</sup>	7M	3.4	-35	1.5	500	15	500	-10	-70	312
<i>MMBR536LT1</i> <sup>(17)</sup>	7R	5.5	-20	4.5	500	14	500	-10	-30	350
<i>MMBR4957LT1</i> <sup>(17)</sup>	7F	1.2	-2	3	450	17	450	-30	-30	350
<i>MMBR931LT1</i>	7D	3	1	4.3	1000	10	1000	5	5	350
<i>MMBR5031LT1</i>	7G	1	5	2.5	450	17	450	10	20	350
<i>MMBR5179LT1</i>	7H	1.4	5	4.5	200	15	200	12	50	350
<i>BFR92ALT1</i>	P2	3.4	14	3.0	500	15	—	15	25	350
<i>MMBR920LT1</i>	7B	4.5	14	2.4	500	15	500	15	35	350
<i>MMBR901LT1</i>	7A	4	15	1.9	1000	12	1000	15	30	350
<i>MMBR941LT1</i>	7Y	8	15	2.1	2000	8.5	2000	10	50	400
<i>MMBR941BLT1</i>	7N	8	15	2.1	2000	8.5	2000	10	50	400
<i>BFS17LT1</i>	E1	1.3	25	5	30	—	—	15	—	350
<i>BFR93ALT1</i>	R2	3.4	30	2.5	30	—	—	12	35	350
<i>MMBR911LT1</i>	7P	6	30	2	500	17	500	12	40	350
<i>MMBR951LT1</i>	7Z	8	30	2.1	2000	7.5	2000	10	100	500
<i>MMBR951ALT1</i>	AAG	8	30	2.1	2000	7.5	2000	10	100	500
<i>MMBR571LT1</i>	7X	8	50	2	500	16.5	500	10	80	350

<sup>(17)</sup>PNP

See Packaging Information under Technical Data Section for reel size, quantity and ordering information.

Devices listed in bold, italic are Motorola preferred devices.