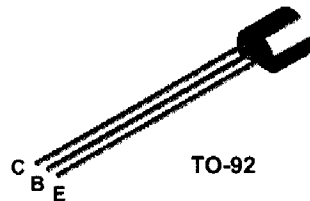
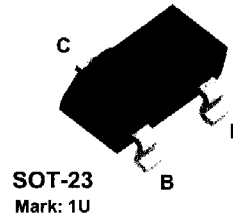


**PN2484**



**MMBT2484**



**Absolute Maximum Ratings\***

TA = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V <sub>CEO</sub>	Collector-Emitter Voltage	60	V
V <sub>CBO</sub>	Collector-Base Voltage	60	V
V <sub>EBO</sub>	Emitter-Base Voltage	5.0	V
I <sub>C</sub>	Collector Current - Continuous	100	mA
T <sub>J</sub> , T <sub>stg</sub>	Operating and Storage Junction Temperature Range	-55 to +150	°C

\*These ratings are limiting values above which the serviceability of any semiconductor device may be impaired.

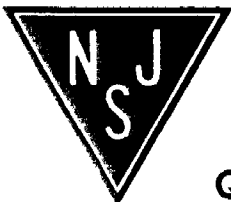
**NOTES:**

- 1) These ratings are based on a maximum junction temperature of 150 degrees C.
- 2) These are steady state limits. The factory should be consulted on applications involving pulsed or low duty cycle operations.

**Thermal Characteristics**

TA = 25°C unless otherwise noted

Symbol	Characteristic	Max		Units
		PN2484	*MMBT2484	
P <sub>D</sub>	Total Device Dissipation Derate above 25°C	625	350	mW
		5.0	2.8	mW/°C
R <sub>θJC</sub>	Thermal Resistance, Junction to Case	83.3		°C/W
R <sub>θJA</sub>	Thermal Resistance, Junction to Ambient	200	357	°C/W



NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

## NPN General Purpose Amplifier

(continued)

### Electrical Characteristics

T<sub>A</sub> = 25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
--------	-----------	-----------------	-----	-----	-------

#### OFF CHARACTERISTICS

BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = 10 μA, I <sub>B</sub> = 0	60		V
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage*	I <sub>C</sub> = 10 mA, I <sub>E</sub> = 0	60		V
BV <sub>EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>C</sub> = 10 μA, I <sub>E</sub> = 0	5.0		V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 45 V, I <sub>E</sub> = 0 V <sub>CB</sub> = 45 V, I <sub>E</sub> = 0, T <sub>A</sub> = 150°C		10 10	nA μA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 5.0 V, I <sub>C</sub> = 0		10	nA

#### ON CHARACTERISTICS

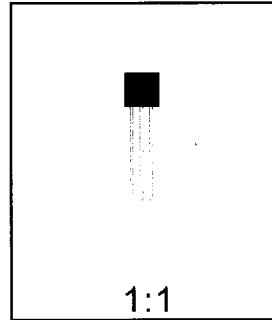
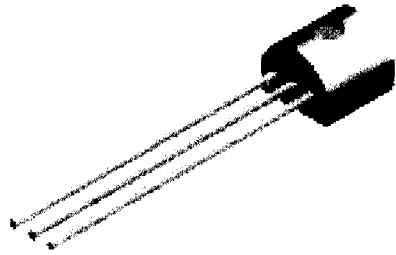
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 1.0 mA, V <sub>CE</sub> = 5.0 V I <sub>C</sub> = 10 mA, V <sub>CE</sub> = 5.0 V*	250	800	
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 1.0 mA, I <sub>B</sub> = 0.1 mA		0.35	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = 1.0 mA, V <sub>CE</sub> = 5.0 V		0.95	V

#### SMALL SIGNAL CHARACTERISTICS

C <sub>obo</sub>	Output Capacitance	V <sub>CB</sub> = 5.0 V, f = 140 kHz		6.0	pF
C <sub>ibo</sub>	Input Capacitance	V <sub>EB</sub> = 0.5 V, f = 140 kHz		6.0	pF
NF	Noise Figure	I <sub>C</sub> = 10 μA, V <sub>CE</sub> = 5.0 V, R <sub>S</sub> = 10k, f = 1.0 kHz, BW = 200 Hz		3.0	dB

\* Pulse Test: Pulse Width ≤ 300 μs, Duty Cycle ≤ 3.0%

# TO-92 (FS PKG Code 92, 94, 96)



Scale 1:1 on letter size paper

Dimensions shown below are in:  
inches [millimeters]

Part Weight per unit (gram): 0.1977

TO-92 (92,94,96)

PIN	92		94		96	
	B	F	B	F	B	F
1	E	D	E	D	B	S
2	B	S	C	G	E	D
3	C	G	B	S	C	C

