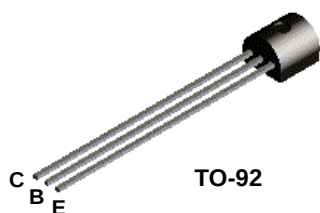
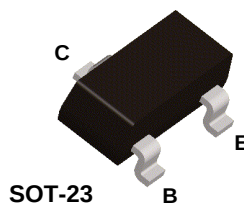


PN2484



TO-92

MMBT2484



SOT-23
Mark: 1U

NPN General Purpose Amplifier

This device is designed for low noise, high gain, general purpose amplifier applications at collector currents from 1 μ to 50 mA. Sourced from Process 07. See 2N5088 for characteristics.

Absolute Maximum Ratings*

TA = 25°C unless otherwise noted

Symbol	Parameter	Value	Units
V _{CEO}	Collector-Emitter Voltage	60	V
V _{CBO}	Collector-Base Voltage	60	V
V _{EB0}	Emitter-Base Voltage	5.0	V
I _C	Collector Current - Continuous	100	mA
T _J , T _{stg}	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 _D	Total Device Dissipation	625	350	mW
	Derate above 25°C	5.0	2.8	mW/°C
R _{θJC}	Thermal Resistance, Junction to Case	83.3		°C/W
R _{θJA}	Thermal Resistance, Junction to Ambient	200	357	°C/W

*Device mounted on FR-4 PCB 1.6" X 1.6" X 0.06."

NPN General Purpose Amplifier

(continued)

PN2484 / MMBT2484

Electrical Characteristics

TA = 25°C unless otherwise noted

Symbol	Parameter	Test Conditions	Min	Max	Units
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OFF CHARACTERISTICS

BV _{CBO}	Collector-Base Breakdown Voltage	I _C = 10 μA, I _B = 0	60		V
BV _{CEO}	Collector-Emitter Breakdown Voltage*	I _C = 10 mA, I _E = 0	60		V
BV _{EBO}	Emitter-Base Breakdown Voltage	I _C = 10 μA, I _E = 0	5.0		V
I _{CBO}	Collector Cutoff Current	V _{CB} = 45 V, I _E = 0		10	nA
		V _{CB} = 45 V, I _E = 0, T _A = 150°C		10	μA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 5.0 V, I _C = 0		10	nA

ON CHARACTERISTICS

h _{FE}	DC Current Gain	I _C = 1.0 mA, V _{CE} = 5.0 V I _C = 10 mA, V _{CE} = 5.0 V*	250	800	
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 1.0 mA, I _B = 0.1 mA		0.35	V
V _{BE(on)}	Base-Emitter On Voltage	I _C = 1.0 mA, V _{CE} = 5.0 V		0.95	V

SMALL SIGNAL CHARACTERISTICS

C _{obo}	Output Capacitance	V _{CB} = 5.0 V, f = 140 kHz		6.0	pF
C _{ibo}	Input Capacitance	V _{EB} = 0.5 V, f = 140 kHz		6.0	pF
NF	Noise Figure	I _C = 10 μA, V _{CE} = 5.0 V, R _S = 10k, f = 1.0 kHz, BW = 200 Hz		3.0	dB

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