

October 1985

MMBTH34 Surface Mount NPN RF-IF Amp

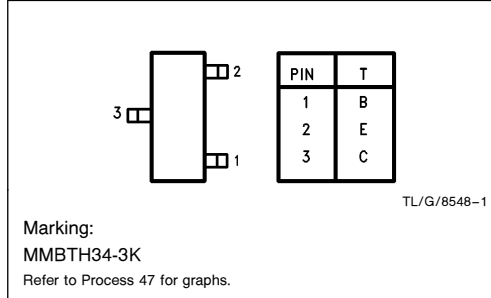
General Description

This device was designed for common-emitter low noise amplifier and mixer applications in the 100 μ A to 15 mA range to 300 MHz, and low frequency drift common-base VHF oscillator applications with high output levels for driving FET mixers.

Absolute Maximum Ratings

Collector-Base Voltage	45V
Emitter-Base Voltage	4.0V
Collector Current—Continuous	100 mA
Total Device Dissipation, $T_A = 25^\circ\text{C}$	350°C
Derate above 25°C (Note 1)	2.8 mW/°C
Operating Temperature Range	-55°C to +150°C
Storage Temperature Range	-55°C to +150°C
Lead Temperature for 10 seconds	300°C

Note 1: Package mounted on 99.5% alumina 10 x 8 x 0.6 mm.



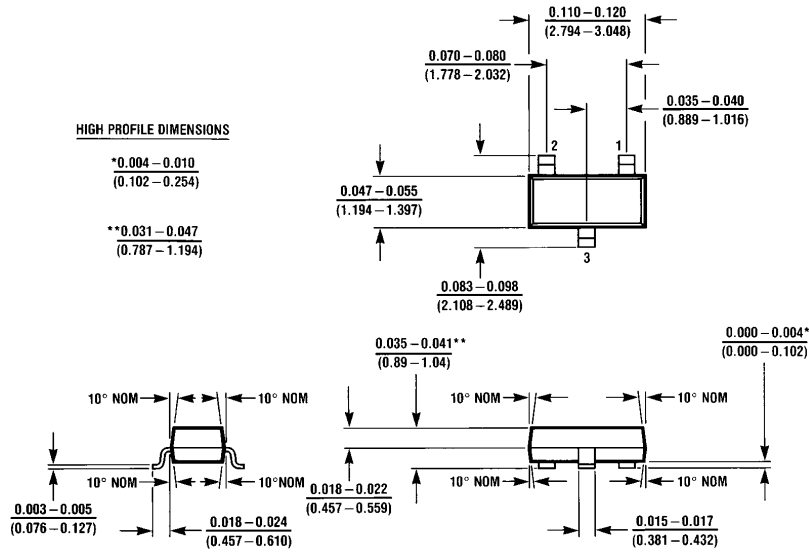
Electrical Characteristics $T_A = 25^\circ\text{C}$ unless otherwise specified

Symbol	Conditions	Min	Typ	Max	Units
BV_{CBO}	$I_C = 100 \mu\text{A}$	45			V
BV_{CEO}	$I_C = 1.0 \text{ mA}$	45			V
BV_{EBO}	$I_E = 10 \mu\text{A}$	4.0			V
I_{CBO}	$V_{CB} = 30\text{V}$			50	nA
I_{CES}	$V_{CE} = 30\text{V}$			50	nA
h_{FE}	$V_{CE} = 15\text{V}, I_C = 7.0 \text{ mA}$	40			
h_{FE}	$V_{CE} = 2.0\text{V}, I_C = 20 \text{ mA}$	15			
$V_{CE(s)}$	$I_C = 20 \text{ mA}, I_B = 2.0 \text{ mA}$			0.5	V
$V_{BE(on)}$	$V_{CE} = 15\text{V}, I_C = 7.0 \text{ mA}$			0.95	V
C_{cb}	$V_{CB} = 10\text{V}, f = 1 \text{ MHz}$			0.32	pF
h_{fe}	$V_{CE} = 15\text{V}, I_C = 15 \text{ mA}, f = 100 \text{ MHz}$	5.0			

Order Number MMBTH34 or MMBTH34-HIGH
See NS Package Number M03

MMBTH34 Surface Mount NPN RF-IF Amp

Physical Dimensions inches (millimeters)



SOT-23 3-Lead Molded Dual-In-Line (M)
Order Number MMBTH34 or MMBTH34-HIGH
NS Package Number M03

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