

# 2SA1734T2G

Preferred Device

## PNP Silicon Transistor

The device is housed in the SOT-89 package, which is designed for medium power surface mount applications.

- High Current: 1.2 Amp
- Available in 7 inch/1000 unit Tape and Reel
- Device Marking: SA

### MAXIMUM RATINGS (T<sub>C</sub> = 25°C unless otherwise noted)

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V <sub>CEO</sub>	-30	Vdc
Collector-Base Voltage	V <sub>CBO</sub>	-40	Vdc
Emitter-Base Voltage	V <sub>EBO</sub>	-6	Vdc
Collector Current	I <sub>C</sub>	-1.2	Adc
Total Power Dissipation @ T <sub>A</sub> = 25°C Derate above 25°C	P <sub>D</sub> (Note 1)  (Note 2)	1.56 13 0.67 5.0	Watts mW/°C Watts mW/°C
Operating and Storage Temperature Range	T <sub>J</sub> , T <sub>stg</sub>	-65 to 150	°C

### THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance Junction-to-Ambient (surface mounted)	R <sub>θJA</sub> (Note 1) (Note 2)	60 190	°C/W
Maximum Temperature for Soldering Purposes Time in Solder Bath	T <sub>L</sub>	260 10	°C Sec

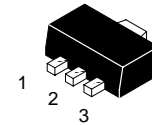
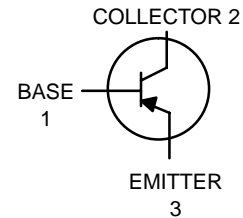
1. FR-4 @ 1.0 X 1.0 inch Pad 2.0 oz. Cu PCB
2. FR-4 @ Minimum Pad



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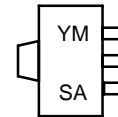
<http://onsemi.com>

### MEDIUM POWER PNP SILICON HIGH CURRENT TRANSISTOR SURFACE MOUNT



SOT-89  
CASE 1213  
STYLE 2

### MARKING DIAGRAM



Y = Year Code  
M = Month Code  
SA = Device Code

### ORDERING INFORMATION

Device	Package	Shipping
2SA1734T2G	SOT-89	1000/Tape & Reel

Preferred devices are recommended choices for future use and best overall value.

## 2SA1734T2G

### ELECTRICAL CHARACTERISTICS ( $T_C = 25^\circ\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min	Typ	Max	Unit
<b>OFF CHARACTERISTICS</b>					
Collector–Emitter Breakdown Voltage (Note 3) ( $I_C = -10\text{ mAdc}$ , $I_B = 0$ )	$V_{(BR)CEO}$	-30	–	–	Vdc
Collector Cutoff Current ( $V_{CB} = -40\text{ Vdc}$ , $I_E = 0$ )	$I_{CBO}$	–	–	-0.1	$\mu\text{Adc}$
Emitter Cutoff Current ( $V_{EB} = -6.0\text{ V}$ , $I_C = 0$ )	$I_{EBO}$	–	–	-0.1	$\mu\text{Adc}$
<b>ON CHARACTERISTICS (Note 3)</b>					
DC Current Gain ( $I_C = -100\text{ mA}$ , $V_{CE} = -2.0\text{ V}$ ) ( $I_C = -1.0\text{ A}$ , $V_{CE} = -2.0\text{ V}$ )	$h_{FE}$	120 40	– –	400 –	–
Collector–Emitter Saturation Voltage ( $I_C = -700\text{ mA}$ , $I_B = -35\text{ mA}$ )	$V_{CE(sat)}$	–	–	-0.5	Vdc
Base–Emitter Saturation Voltage ( $I_C = -700\text{ mA}$ , $I_B = -35\text{ mA}$ )	$V_{BE(sat)}$	–	–	-1.2	Vdc
<b>SMALL–SIGNAL CHARACTERISTICS</b>					
Current–Gain – Bandwidth Product (Note 4) ( $I_C = -100\text{ mAdc}$ , $V_{CE} = -2.0\text{ Vdc}$ , $f = 100\text{ MHz}$ )	$f_T$	–	100	–	MHz
Collector Output Capacitance ( $V_{CB} = -10\text{ Vdc}$ , $I_E = 0\text{ mAdc}$ , $f = 1.0\text{ MHz}$ )	$C_{OB}$	–	16	–	pF

3. Pulse Test: Pulse Width  $\leq 300\ \mu\text{s}$ , Duty Cycle = 2.0%.
4.  $f_T$  is defined as the frequency at which  $|h_{fe}|$  extrapolates to unity.

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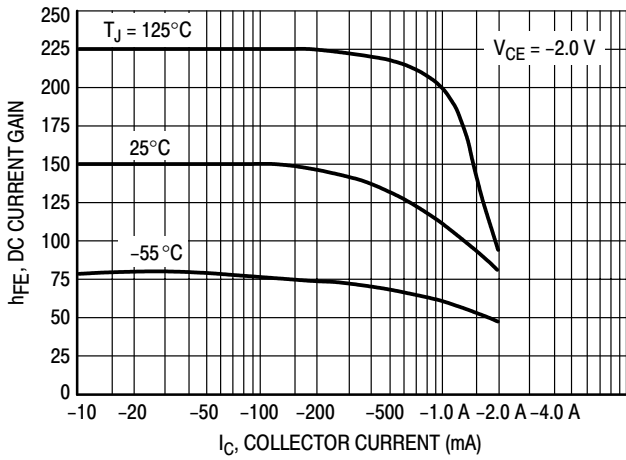


Figure 1. Typical DC Current Gain

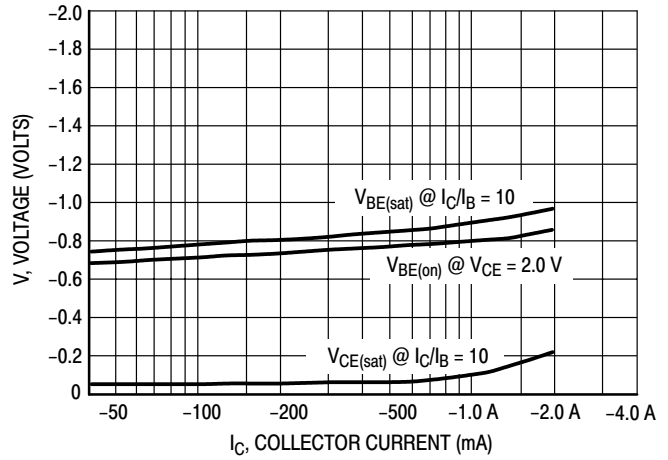


Figure 2. On Voltages

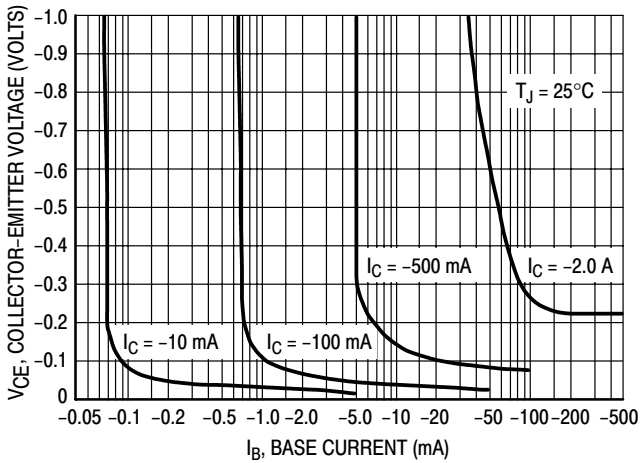


Figure 3. Collector Saturation Region

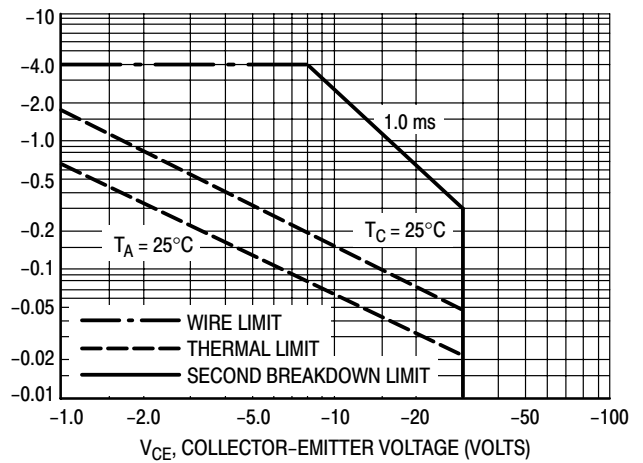
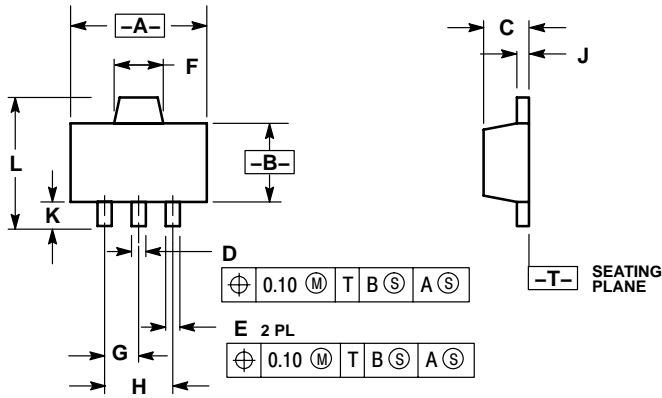


Figure 4. Safe Operating Area

# 2SA1734T2G

## PACKAGE DIMENSIONS

SOT-89  
(3-LEAD)  
CASE 1213-02  
ISSUE C




NOTES:

1. DIMENSIONING AND TOLERANCING PER ANSI Y14.5M, 1982.
2. CONTROLLING DIMENSION: MILLIMETERS
3. 1213-01 OBSOLETE, NEW STANDARD 1213-02.

DIM	MILLIMETERS		INCHES	
	MIN	MAX	MIN	MAX
A	4.40	4.60	0.173	0.181
B	2.40	2.60	0.094	0.102
C	1.40	1.60	0.055	0.063
D	0.37	0.57	0.015	0.022
E	0.32	0.52	0.013	0.020
F	1.50	1.83	0.059	0.072
G	1.50 BSC		0.059 BSC	
H	3.00 BSC		0.118 BSC	
J	0.30	0.50	0.012	0.020
K	0.80	---	0.031	---
L	---	4.25	---	0.167

STYLE 2:

- PIN 1. BASE
- COLLECTOR
- EMITTER

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