

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

Rating	Symbol	Value	Unit
Collector-Emitter Voltage	V_{CEO}	-30	Vdc
Collector-Base Voltage	V_{CBO}	-40	Vdc
Emitter-Base Voltage	V_{EBO}	-6	Vdc
Collector Current	I_C	-1.2	Adc
Total Power Dissipation @ $T_A = 25^\circ\text{C}$ Derate above 25°C	P_D (Note 1) (Note 2)	1.56 13 0.67 5.0	Watts $\text{mW}/^\circ\text{C}$ Watts $\text{mW}/^\circ\text{C}$
Operating and Storage Temperature Range	T_J, T_{stg}	-65 to 150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance Junction-to-Ambient (surface mounted)	$R_{\theta JA}$ (Note 1) (Note 2)	60 190	$^\circ\text{C}/\text{W}$
Maximum Temperature for Soldering Purposes Time in Solder Bath	T_L	260 10	$^\circ\text{C}$ Sec

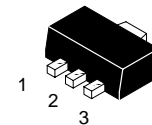
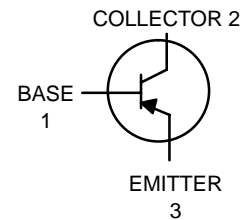
1. FR-4 @ 1.0 X 1.0 inch Pad 2.0 oz. Cu PCB
2. FR-4 @ Minimum Pad



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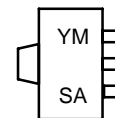
<http://onsemi.com>

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
OFF CHARACTERISTICS					
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	μAdc
Emitter Cutoff Current ($V_{EB} = -6.0\text{ V}$, $I_C = 0$)	I_{EBO}	–	–	-0.1	μAdc
ON CHARACTERISTICS (Note 3)					
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
SMALL–SIGNAL CHARACTERISTICS					
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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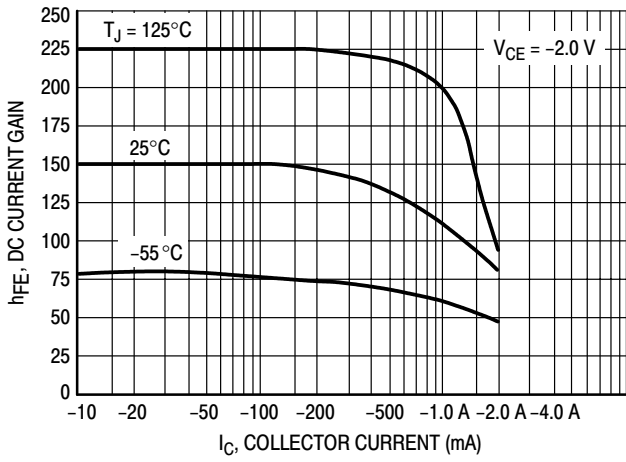


Figure 1. Typical DC Current Gain

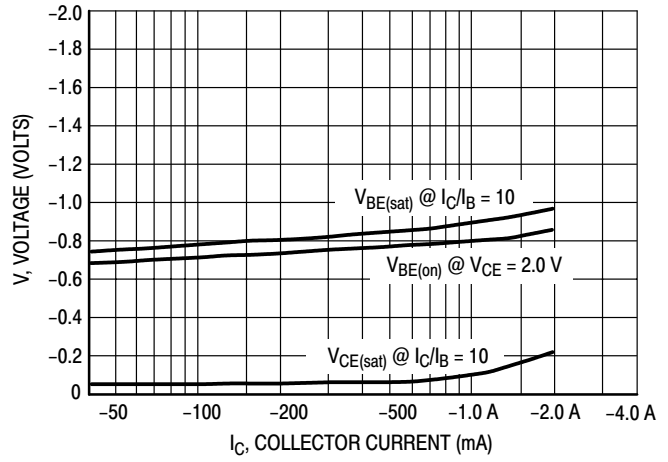


Figure 2. On Voltages

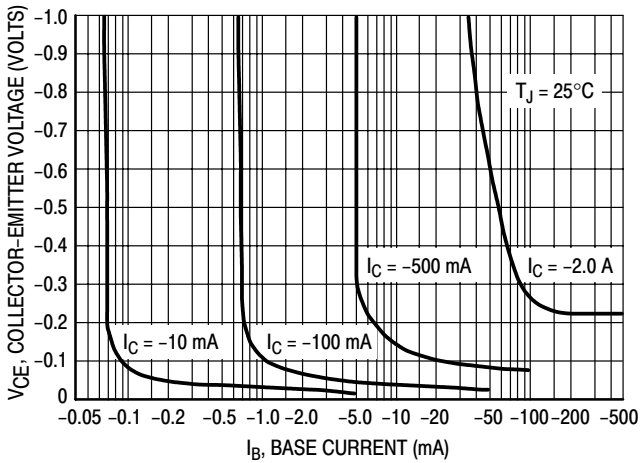


Figure 3. Collector Saturation Region

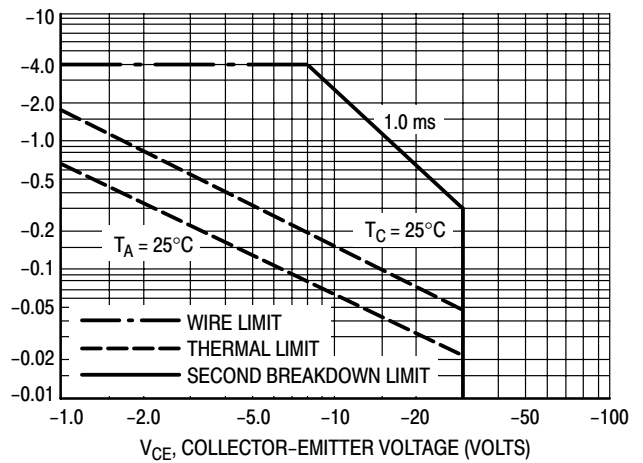
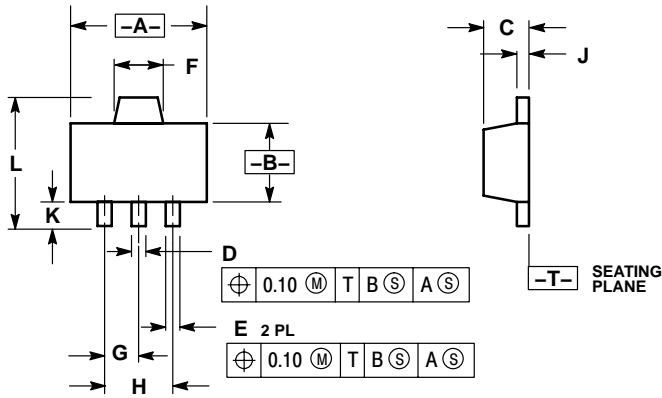


Figure 4. Safe Operating Area

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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