Ordering number : ENA1346A

PCP1103

Bipolar Transistor
−30V, −1.5A, Low V_{CE}(sat) PNP Single PCP

ON Semiconductor®
http://onsemi.com

Applications

- DC / DC converters, relay drivers, lamp drivers, motor drivers, IGBT gate drivers

Features

- Adoption of MBIT process
- Low collector to emitter saturation voltage
- High allowable power dissipation
- Large current capacity
- High speed switching
- Halogen free compliance

Specifications

Absolute Maximum Ratings at Ta=25°C

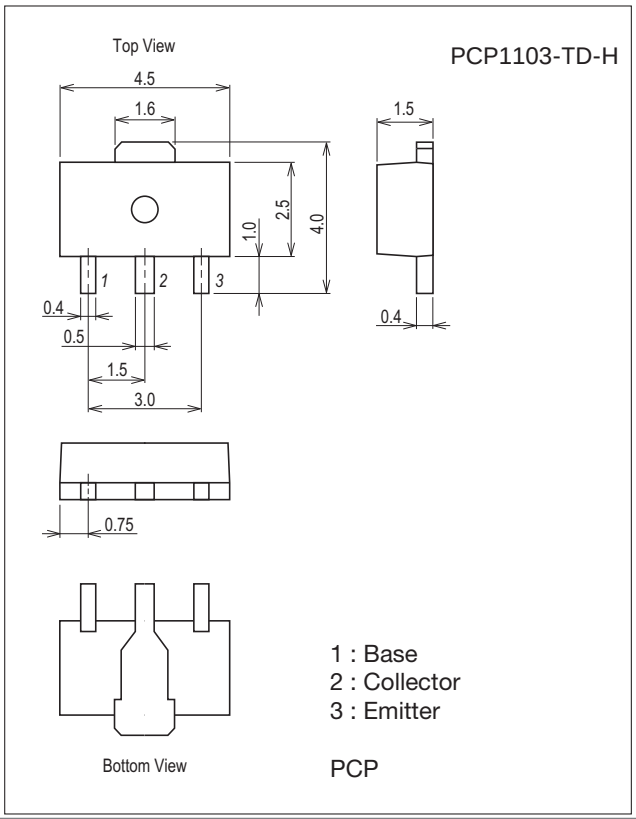
Parameter	Symbol	Conditions	Ratings	Unit
Collector to Base Voltage	V_{CBO}		−30	V
Collector to Emitter Voltage	V_{CEO}		−30	V
Emitter to Base Voltage	V_{EBO}		−5	V
Collector Current	I_C		−1.5	A
Collector Current (Pulse)	I_{CP}		−5	A

Continued on next page.

Stresses exceeding Maximum Ratings may damage the device. Maximum Ratings are stress ratings only. Functional operation above the Recommended Operating Conditions is not implied. Extended exposure to stresses above the Recommended Operating Conditions may affect device reliability.

Package Dimensions

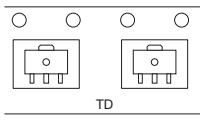
unit : mm (typ)
7007B-004



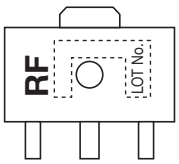
Product & Package Information

- Package : PCP
- JEITA, JEDEC : SC-62, SOT-89, TO-243
- Minimum Packing Quantity : 1,000 pcs./reel

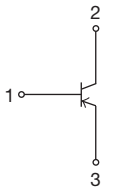
Packing Type: TD



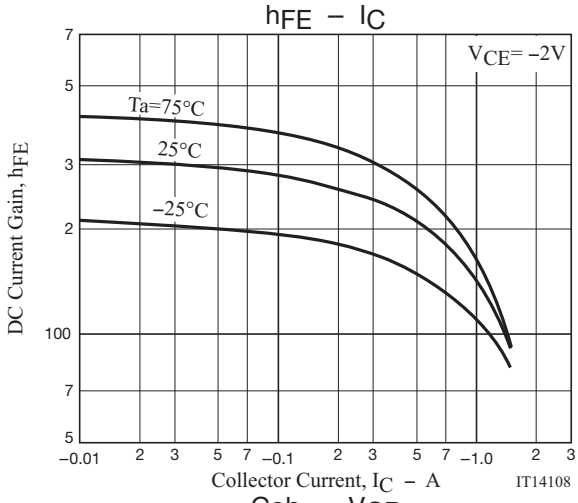
Marking

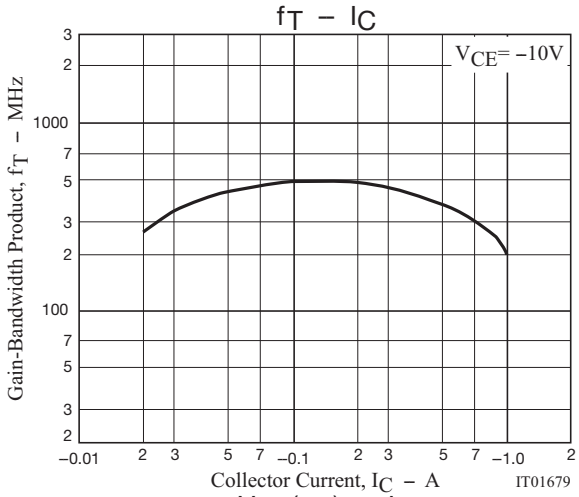


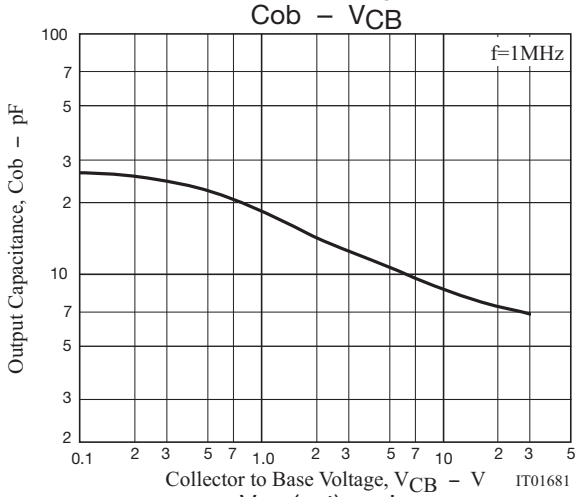
Electrical Connection

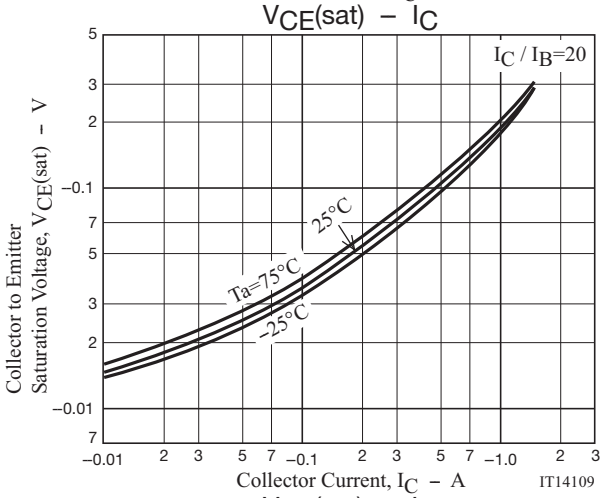


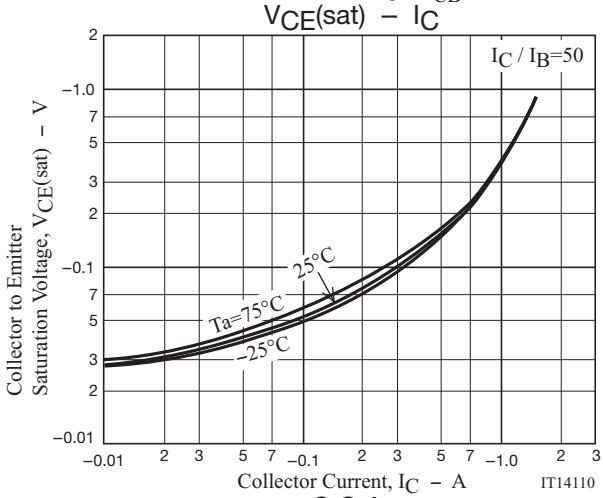
Semiconductor Components Industries, LLC, 2013

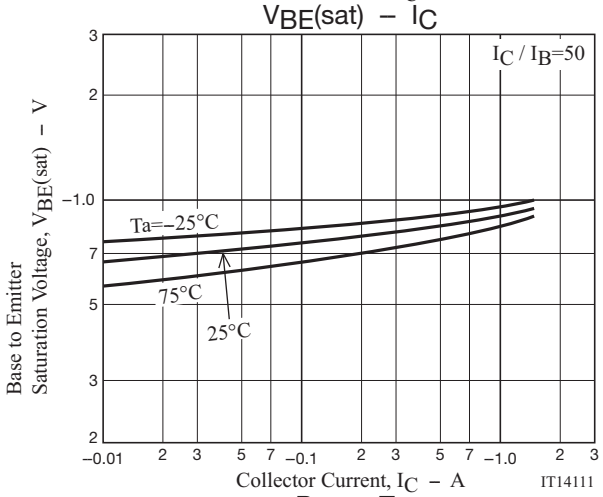

hFE – IC
VCE= –2V
Ta=75°C
25°C
–25°C
DC Current Gain, hFE
Collector Current, IC – A
IT14108

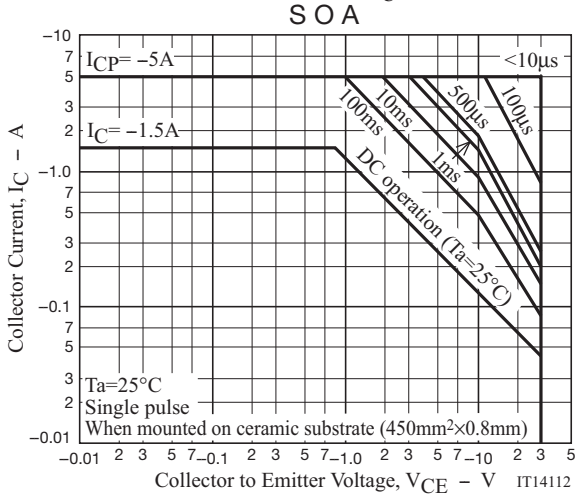

fT – IC
VCE= –10V
Gain-Bandwidth Product, fT – MHz
Collector Current, IC – A
IT01679

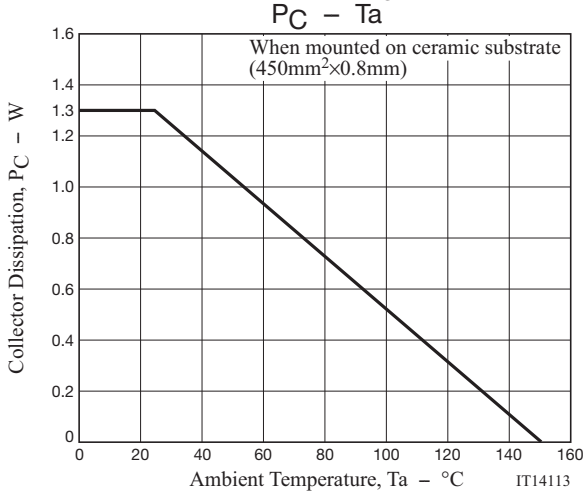

Cob – VCB
f=1MHz
Output Capacitance, Cob – pF
Collector to Base Voltage, VCB – V
IT01681

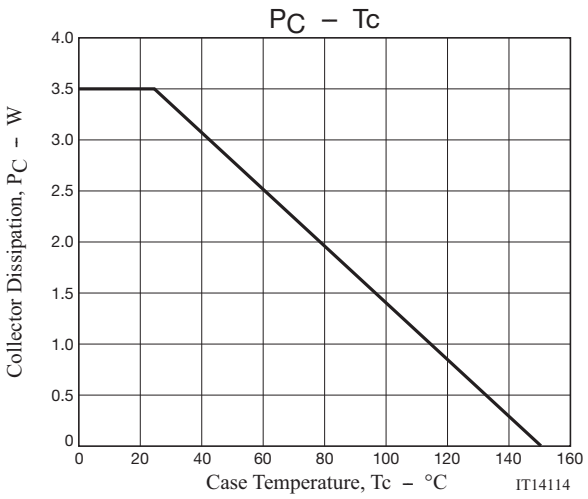

VCE(sat) – IC
IC / IB=20
25°C
Ta=75°C
–25°C
Collector to Emitter Saturation Voltage, VCE(sat) – V
Collector Current, IC – A
IT14109


VCE(sat) – IC
IC / IB=50
25°C
Ta=75°C
–25°C
Collector to Emitter Saturation Voltage, VCE(sat) – V
Collector Current, IC – A
IT14110


VBE(sat) – IC
IC / IB=50
Ta=–25°C
75°C
25°C
Base to Emitter Saturation Voltage, VBE(sat) – V
Collector Current, IC – A
IT14111

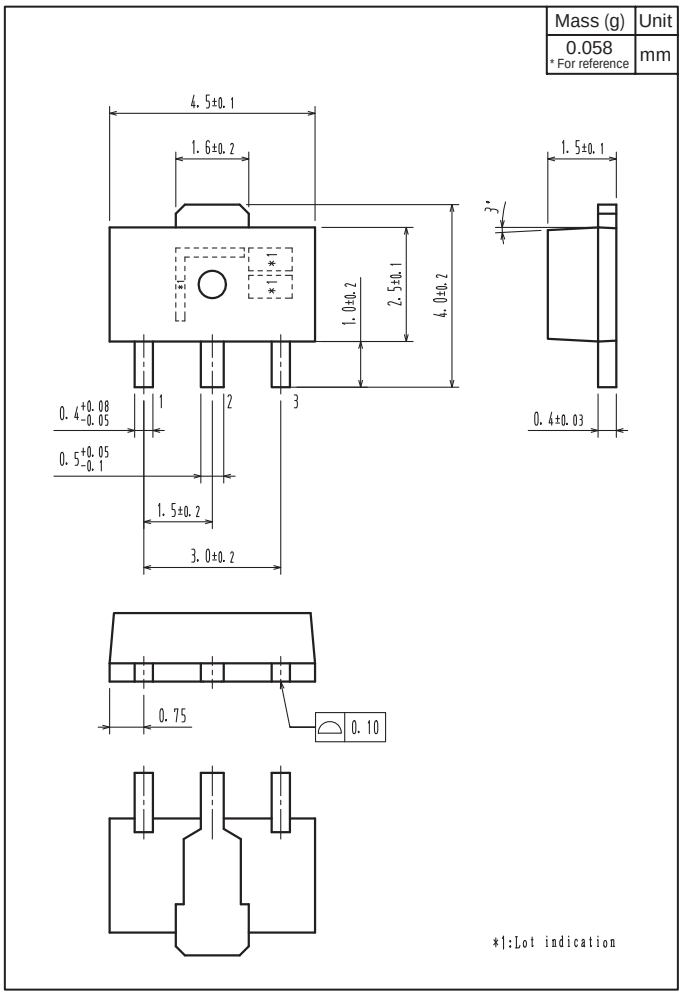

S O A
ICP= –5A
IC= –1.5A
<10µs
100µs
500µs
10ms
100ms
1ms
DC operation (Ta=25°C)
Ta=25°C
Single pulse
When mounted on ceramic substrate (450mm²×0.8mm)
Collector Current, IC – A
Collector to Emitter Voltage, VCE – V
IT14112


PC – Ta
When mounted on ceramic substrate
(450mm²×0.8mm)
Collector Dissipation, PC – W
Ambient Temperature, Ta – °C
IT14113

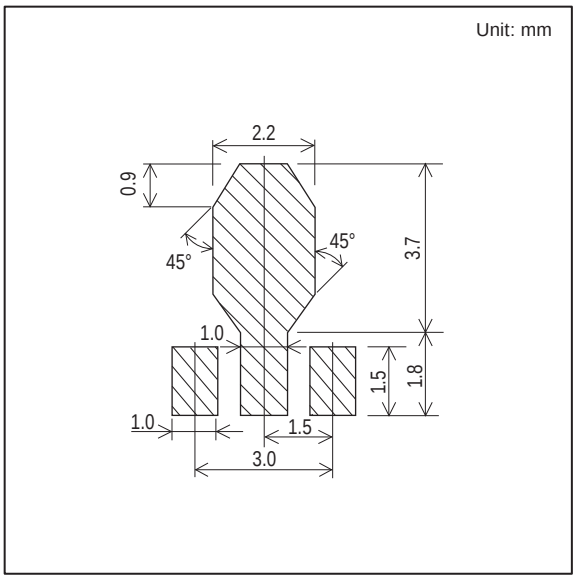

PC – Tc
Collector Dissipation, PC – W
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0
0
20
40
60
80
100
120
140
160
Case Temperature, Tc – °C
IT14114

Outline Drawing

PCP1103-TD-H



Land Pattern Example



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