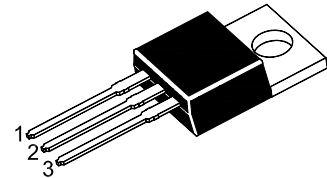


ST TIP122

NPN Silicon Power Darlington Transistor

for power switching and amplifier applications



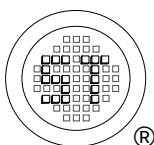
1.Base 2.Collector 3.Emitter
TO-220 Plastic Package

Absolute Maximum Ratings ($T_a = 25^\circ\text{C}$)

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	100	V
Collector Emitter Voltage	V_{CEO}	100	V
Emitter Base Voltage	V_{EBO}	5	V
Collector Current	I_C	5	A
Collector Current (Pulse)	I_{CP}	8	A
Base Current	I_B	0.12	A
Power Dissipation ($T_a = 25^\circ\text{C}$)	P_C	2	W
Power Dissipation ($T_c = 25^\circ\text{C}$)	P_C	65	W
Junction Temperature	T_j	150	$^\circ\text{C}$
Storage Temperature Range	T_{stg}	- 65 to + 150	$^\circ\text{C}$

Characteristics at $T_a = 25^\circ\text{C}$

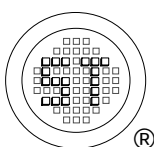
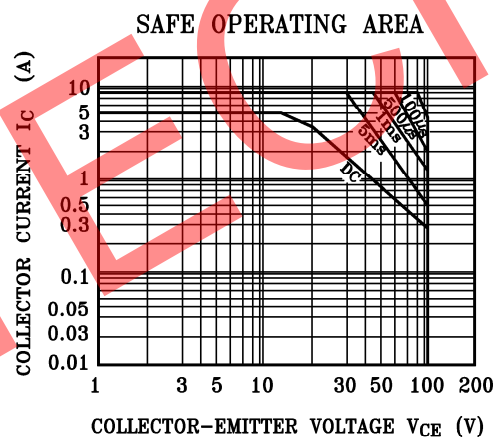
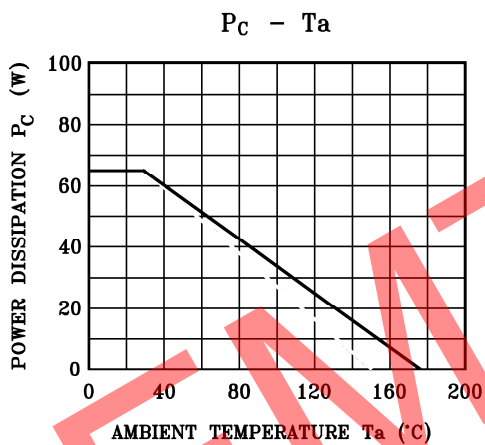
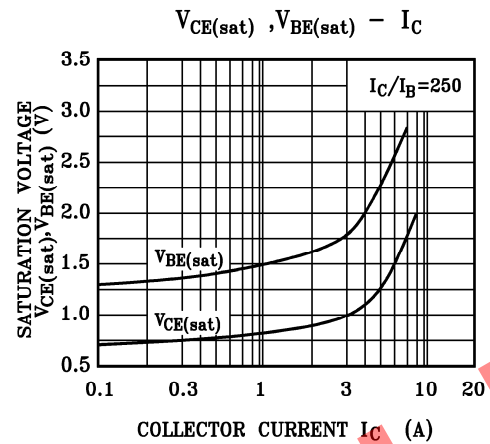
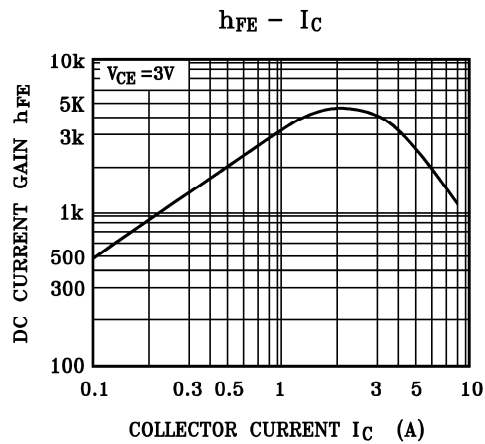
Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $V_{CE} = 3\text{ V}$, $I_C = 0.5\text{ A}$ at $V_{CE} = 3\text{ V}$, $I_C = 3\text{ A}$	h_{FE} h_{FE}	1000 1000	- -	- -
Collector Base Cutoff Current at $V_{CB} = 100\text{ V}$	I_{CBO}	-	0.2	mA
Collector Emitter Cutoff Current at $V_{CE} = 50\text{ V}$	I_{CEO}	-	0.5	mA
Emitter Base Cutoff Current at $V_{EB} = 5\text{ V}$	I_{EBO}	-	2	mA
Collector Emitter Sustaining Voltage at $I_C = 30\text{ mA}$	$V_{CEO(sus)}$	100	-	V
Collector Emitter Saturation Voltage at $I_C = 3\text{ A}$, $I_B = 12\text{ mA}$	$V_{CE(sat)}$	-	2	V
Collector Emitter Saturation Voltage at $I_C = 5\text{ A}$, $I_B = 20\text{ mA}$	$V_{CE(sat)}$	-	4	V
Base Emitter On Voltage at $V_{CE} = 3\text{ V}$, $I_C = 3\text{ A}$	$V_{BE(on)}$	-	2.5	V



SEMTECH ELECTRONICS LTD.
Subsidiary of Sino-Tech International (BVI) Limited



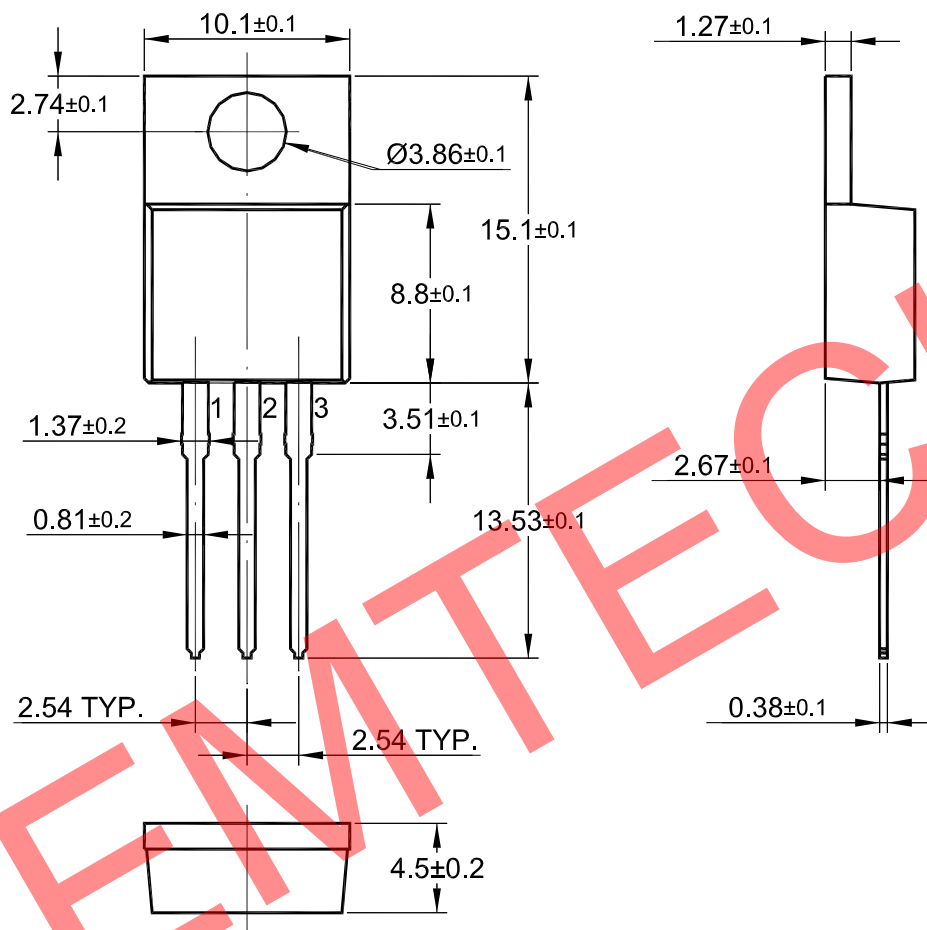
Dated: 15/12/2011 Rev: 01



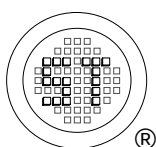
SEMTECH ELECTRONICS LTD.
Subsidiary of Sino-Tech International (BVI) Limited



TO-220 PACKAGE OUTLINE



Dimensions in mm



SEMTECH ELECTRONICS LTD.
Subsidiary of Sino-Tech International (BVI) Limited

