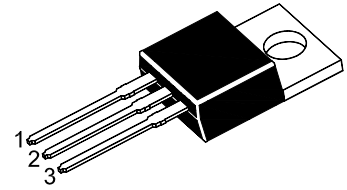


ST 13007

NPN Silicon Transistor

for high voltage, high-speed power switching application



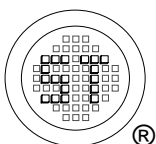
1.Base 2.Collector 3.Emitter
TO-220 Plastic Package

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

Parameter	Symbol	Value	Unit
Collector Base Voltage	V_{CBO}	700	V
Collector Emitter Voltage	V_{CEO}	400	V
Emitter Base Voltage	V_{EBO}	9	V
Collector Current	I_C	8	A
Total Power Dissipation ($T_a = 25\text{ }^\circ\text{C}$)	P_{tot}	2	W
Total Power Dissipation ($T_C = 25\text{ }^\circ\text{C}$)	P_{tot}	80	W
Junction Temperature	T_J	150	$^\circ\text{C}$
Storage Temperature Range	T_S	- 55 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Typ.	Max.	Unit
DC Current Gain at $V_{CE} = 5\text{ V}$, $I_C = 2\text{ A}$	h_{FE}	10	-	70	-
Collector Cutoff Current at $V_{CB} = 700\text{ V}$	I_{CBO}	-	-	100	μA
Emitter Cutoff Current at $V_{EB} = 9\text{ V}$	I_{EBO}	-	-	100	μA
Collector Base Breakdown Voltage at $I_C = 100\text{ }\mu\text{A}$	$V_{(BR)CBO}$	700	-	-	V
Collector Emitter Breakdown Voltage at $I_C = 10\text{ mA}$	$V_{(BR)CEO}$	400	-	-	V
Emitter Base Breakdown Voltage at $I_E = 1\text{ mA}$	$V_{(BR)EBO}$	9	-	-	V
Collector Emitter Saturation Voltage at $I_C = 5\text{ A}$, $I_B = 1\text{ A}$	$V_{CE(sat)}$	-	-	2	V
Base Emitter Saturation Voltage at $I_C = 5\text{ A}$, $I_B = 1\text{ A}$	$V_{BE(sat)}$	-	-	1.6	V
Current Gain Bandwidth Product at $V_{CE} = 10\text{ V}$, $I_C = 0.5\text{ A}$	f_T	4	-	-	MHz
Collector Base Capacitance at $V_{CB} = 10\text{ V}$, $f = 0.1\text{ MHz}$	C_{cb}	-	110	-	pF



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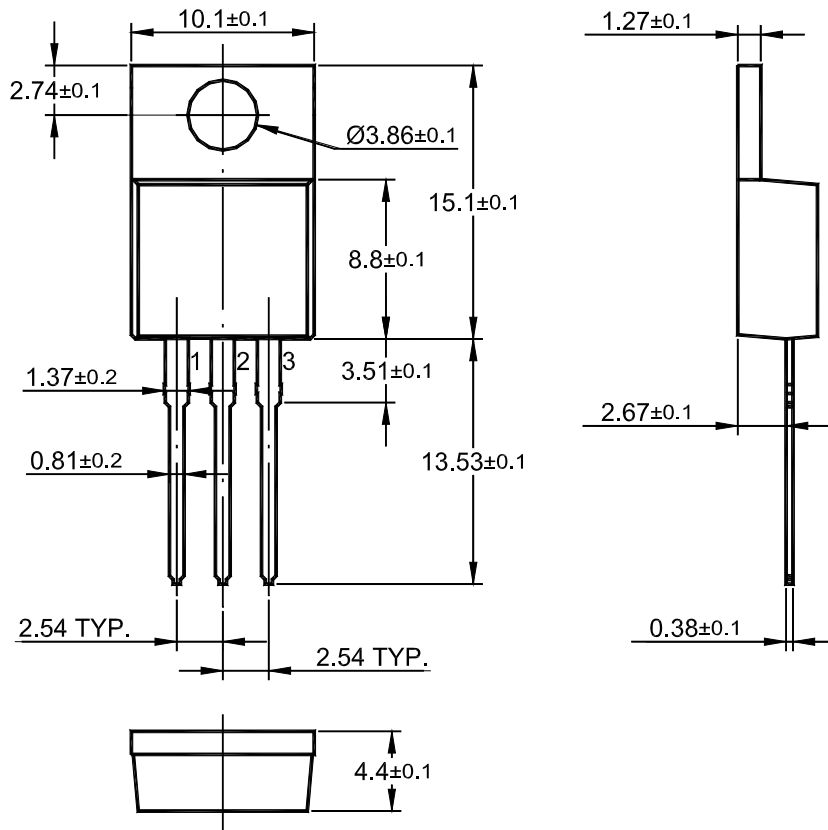
(Subsidiary of Sino-Tech International Holdings Limited, a company
listed on the Hong Kong Stock Exchange, Stock Code: 724)



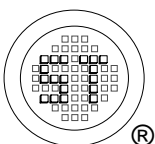
ISO/TS 16949 : 2002 Certificate No. 05103
ISO 14001:2004 Certificate No. 7116
ISO 9001:2000 Certificate No. 050098

Dated : 26/04/2007

TO-220 PACKAGE OUTLINE



Dimensions in mm



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Dated : 26/04/2007