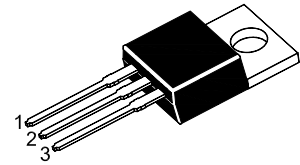


# 13007

## NPN Silicon Transistor

for high voltage, high-speed power switching application



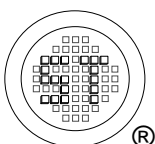
1.Base 2.Collector 3.Emitter  
TO-220 Plastic Package

### 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	$T_{stg}$	- 55 to + 150	$^\circ\text{C}$

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

Parameter	Symbol	Min.	Max.	Unit
DC Current Gain at $V_{CE} = 5\text{ V}$ , $I_C = 2\text{ A}$	$h_{FE}$	8	40	-
Collector Base Cutoff Current at $V_{CB} = 700\text{ V}$	$I_{CBO}$	-	1	mA
Emitter Base Cutoff Current at $V_{EB} = 9\text{ V}$	$I_{EBO}$	-	1	mA
Collector Base Breakdown Voltage at $I_C = 1\text{ mA}$	$V_{(BR)CBO}$	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
Transition Frequency at $V_{CE} = 10\text{ V}$ , $I_C = 0.5\text{ A}$	$f_T$	4	-	MHz



**SEMTECH ELECTRONICS LTD.**



ISO 9001 : 2008  
Certificate No. 10713009



ISO 14001 : 2004  
Certificate No. 7116



ISO 9001 : 2008  
Certificate No. 20713410

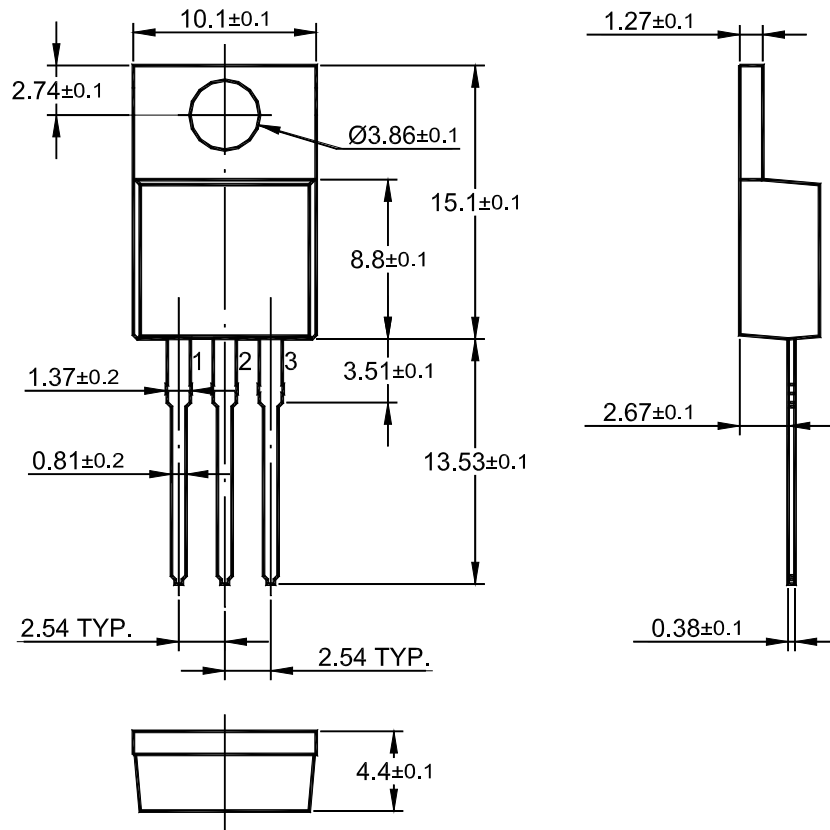


BS-OHSAS 18001 : 2007  
Certificate No. 7116

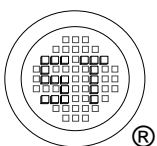


IECQ QC 080000  
Certificate No. FPC-18294-1483-1

TO-220 PACKAGE OUTLINE



Dimensions in mm



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