

# 2SD1271A

Silicon NPN Transistors



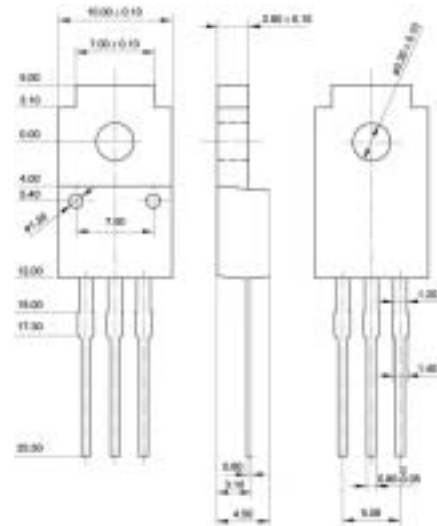
B C E

## ◆ Features

- . For Power Switching.
- . With TO-220Fa package
- . Complement to type 2SB946

## ◆ Absolute Maximum Ratings Tc=25°C

SYMBOL	PARAMETER	RATING	UNIT
V <sub>CB0</sub>	Collector to base voltage	150	V
V <sub>CEO</sub>	Collector to emitter voltage	100	V
V <sub>EBO</sub>	Emitter to base voltage	7	V
I <sub>CP</sub>	Peak collector current	15	A
I <sub>C</sub>	Collector current	7	A
P <sub>C</sub>	Collector power dissipation	40	W
T <sub>j</sub>	Junction temperature	150	°C
T <sub>stg</sub>	Storage temperature	-55~150	°C



TO-220Fa

## ◆ Electrical Characteristics Tc=25°C

SYMBOL	PARAMETER	CONDITIONS	MIN	Typ.	MAX	UNIT
I <sub>CB0</sub>	Collector cut-off current	V <sub>CB</sub> =100V; I <sub>E</sub> =0			10	μA
I <sub>EBO</sub>	Emitter cut-off current	V <sub>EB</sub> =5V; I <sub>C</sub> =0			50	μA
V <sub>CB0</sub>	Collector-base breakdown voltage					
V <sub>CEO</sub>	Collector-emitter breakdown voltage	I <sub>C</sub> =10mA; I <sub>B</sub> =0	100			V
V <sub>EBO</sub>	Emitter-base breakdown voltage					
V <sub>CE(sat-1)</sub>	Collector-emitter saturation voltages	I <sub>C</sub> =5A; I <sub>B</sub> =0.25A			0.5	V
V <sub>CE(sat-2)</sub>	Collector-emitter saturation voltages					
h <sub>FE-1</sub>	Forward current transfer ratio	I <sub>C</sub> =0.1A; V <sub>CE</sub> =2V	45			
h <sub>FE-2</sub>	Forward current transfer ratio	I <sub>C</sub> =3A; V <sub>CE</sub> =2V	60		260	
V <sub>BE(sat)1</sub>	Base-emitter saturation voltages	I <sub>C</sub> =5A; I <sub>B</sub> =0.25A			1.5	V
V <sub>BE(sat)2</sub>	Base-emitter saturation voltages					
f <sub>T</sub>	Transition frequency	I <sub>C</sub> =0.5A; V <sub>CE</sub> =10V, f=10MHz		30		MHz

## ◆ h<sub>FE-2</sub> Classification

R	Q	P
60-120	90-180	130-260