

2SD1271A

Silicon NPN Transistors



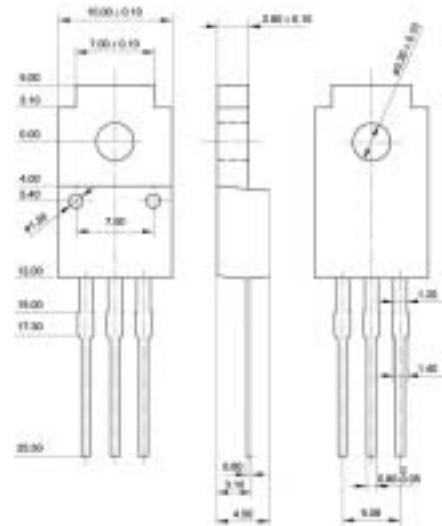
B C E

◆ Features

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

◆ Absolute Maximum Ratings $T_c=25^\circ\text{C}$

SYMBOL	PARAMETER	RATING	UNIT
V_{CB0}	Collector to base voltage	150	V
V_{CEO}	Collector to emitter voltage	100	V
V_{EBO}	Emitter to base voltage	7	V
I_{CP}	Peak collector current	15	A
I_C	Collector current	7	A
P_C	Collector power dissipation	40	W
T_j	Junction temperature	150	$^\circ\text{C}$
T_{stg}	Storage temperature	-55~150	$^\circ\text{C}$



TO-220Fa

◆ Electrical Characteristics $T_c=25^\circ\text{C}$

SYMBOL	PARAMETER	CONDITIONS	MIN	Typ.	MAX	UNIT
I_{CB0}	Collector cut-off current	$V_{CB}=100\text{V}; I_E=0$			10	μA
I_{E0}	Emitter cut-off current	$V_{EB}=5\text{V}; I_C=0$			50	μA
V_{CB0}	Collector-base breakdown voltage					
V_{CEO}	Collector-emitter breakdown voltage	$I_C=10\text{mA}; I_B=0$	100			V
V_{EBO}	Emitter-base breakdown voltage					
$V_{CE(sat-1)}$	Collector-emitter saturation voltages	$I_C=5\text{A}; I_B=0.25\text{A}$			0.5	V
$V_{CE(sat-2)}$	Collector-emitter saturation voltages					
h_{FE-1}	Forward current transfer ratio	$I_C=0.1\text{A}; V_{CE}=2\text{V}$	45			
h_{FE-2}	Forward current transfer ratio	$I_C=3\text{A}; V_{CE}=2\text{V}$	60		260	
$V_{BE(sat)1}$	Base-emitter saturation voltages	$I_C=5\text{A}; I_B=0.25\text{A}$			1.5	V
$V_{BE(sat)2}$	Base-emitter saturation voltages					
f_T	Transition frequency	$I_C=0.5\text{A}; V_{CE}=10\text{V}, f=10\text{MHz}$		30		MHz

◆ h_{FE-2} Classification

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