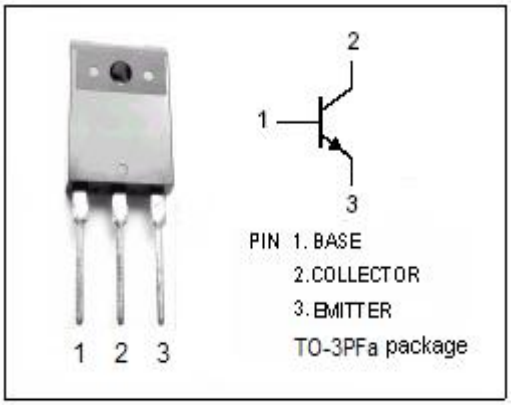
isc Silicon NPN Power Transistor — 2SD1577

DESCRIPTION

- High Breakdown Voltage-
  : V_{CBO}= 1300V (Min)
- High Switching Speed
- High Reliability
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

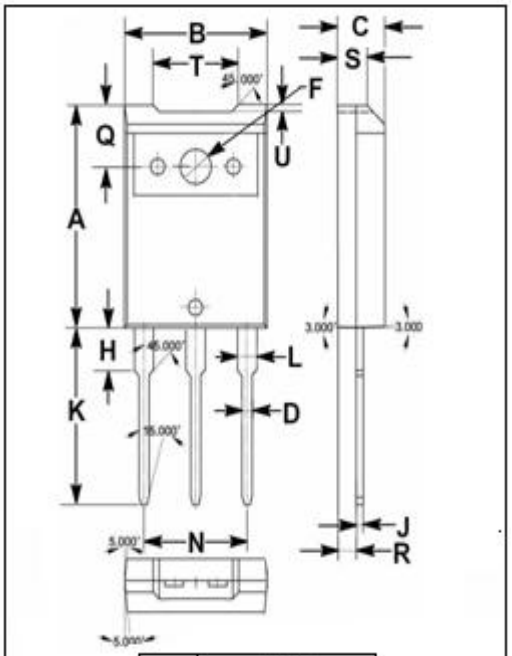


APPLICATIONS

- Designed for horizontal output applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	1300	V
V_{CES}	Collector-Emitter Voltage	1300	V
V_{CEO}	Collector-Emitter Voltage	700	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current- Continuous	5	A
I_{CP}	Collector Current-Peak	17	A
I_{BP}	Base Current-Peak	3.5	A
I_{BP}	Reverse Base Current-Peak	2.5	A
P_C	Collector Power Dissipation @ T_a=25℃	3	W
	Collector Power Dissipation @ T_C=25℃	80	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	mm MAX
A	20.70	21.30
B	14.70	15.30
C	4.80	5.20
D	0.90	1.10
F	3.20	3.40
H	3.70	4.30
J	0.50	0.70
K	16.40	17.00
L	1.90	2.10
N	10.80	11.00
Q	5.60	6.00
R	1.80	2.20
S	3.10	3.50
T	8.70	9.30
U	0.55	0.75

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 1mA ; I_C= 0	6			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 4.5A; I_B= 2A			2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 4.5A; I_B= 2A			1.3	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 750V ; I_E= 0			50	μA
		V_{CB}= 1300V ; I_E= 0			1.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V ; I_C= 0			1.0	mA
h_{FE}	DC Current Gain	I_C= 4A ; V_{CE}= 10V	4		15	
f_T	Current-Gain—Bandwidth Product	I_C= 0.5A ; V_{CE}= 10V, f_{test}= 0.5MHz		2		MHz
Switching times						
t_{stg}	Storage Time	I_C= 4A , $I_{B1(end)}$= 1.5A ; L_B= 10 μH			11	μs
t_f	Fall Time				1.0	μs

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