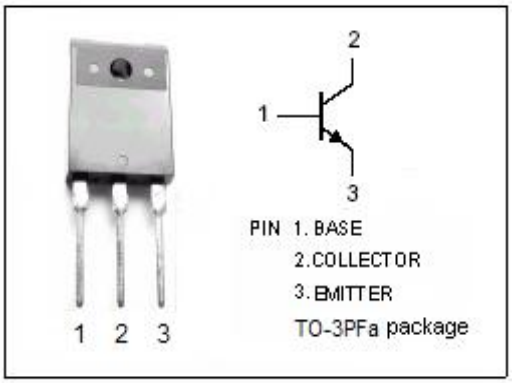
isc Silicon NPN Power Transistor — 2SD1680

DESCRIPTION

- Collector-Base Breakdown Voltage-
  : $V_{(BR)CBO}$= 330V(Min)
- High Power Dissipation
- High Speed Switching
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

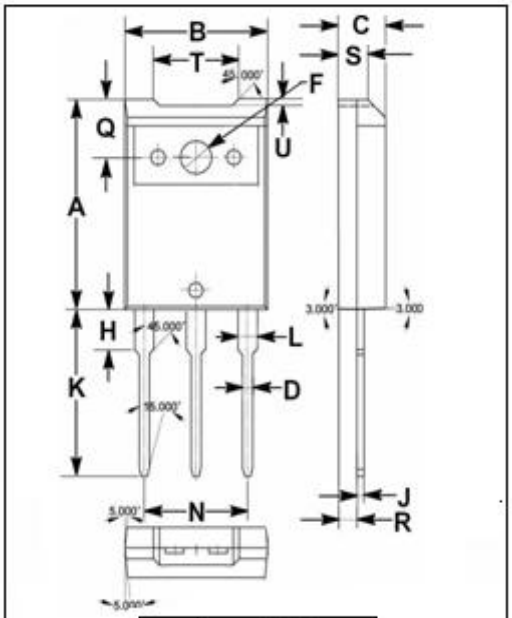


APPLICATIONS

- Designed for horizontal deflection output applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	330	V
V_{CES}	Collector-Emitter Voltage	330	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	7	A
I_{CP}	Collector Current-Pulse	10	A
I_{CP}	Collector Current-Pulse (unrepetitive)	15	A
P_C	Collector Power Dissipation @T_C=25℃	70	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃



DIM	mm MIN	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

isc Silicon NPN Power Transistor 2SD1680

ELECTRICAL CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 30mA; I_B= 0	200		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 5A; I_B= 0.5A		1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 5A; I_B= 0.5A		1.2	V
I_{CES}	Collector Cutoff Current	V_{CE}= 330V; V_{BE}= 0; V_{CE}= 300V; V_{BE}= 0; T_a= 100℃		0.1 1.0	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6V; I_C= 0		1.0	mA
h_{FE}	DC Current Gain	I_C= 5A; V_{CE}= 4V	15	45	
t_f	Fall Time	I_C= 5A; I_{B1}= 0.8A; V_{EB}= -5V, R_B=0.5Ω		0.75	μs