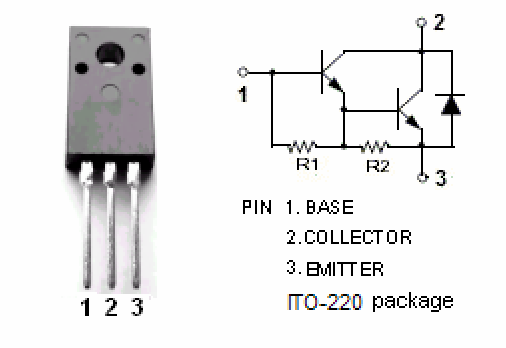
Silicon NPN Darlington Power Transistor 2SD1794

DESCRIPTION

- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= 200V (Min.)
- High Switching Speed

APPLICATIONS

- Designed for audio frequency power amplifier and low speed high current switching industrial use.

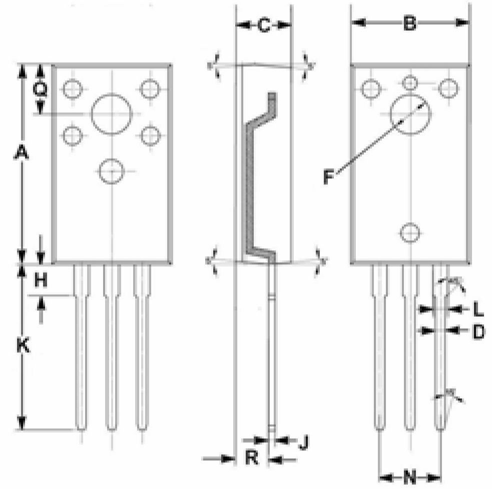


ABSOLUTE MAXIMUM RATINGS (T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CEO}	Collector-Emitter Voltage	200	V
V_{CBO}	Collector-Base Voltage	200	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continunous	10	A
I_{CM}	Collector Current-Peak	15	A
I_B	Base Current-Continunous	0.5	A
I_{BM}	Base Current-Peak	1.0	A
P_C	Collector Power Dissipation @T_C=25℃	50	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	2.5	℃/W



	mm	
DIM	MIN	MAX
A	16.70	17.00
B	9.80	10.20
C	4.40	4.80
D	0.70	0.90
F	3.20	3.40
H	2.50	2.70
J	0.50	0.70
K	13.80	14.20
L	1.10	1.30
N	4.98	5.18
Q	4.00	4.40
R	2.60	2.80

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 50mA; I_B= 0	200			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 5A; I_B= 10mA			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 5A; I_B= 10mA			2.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 200V; I_E= 0			0.1	mA
I_{CEO}	Collector Cutoff Current	V_{CE}= 200V; I_B= 0			0.1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 7V; I_C= 0			5	mA
h_{FE}	DC Current Gain	I_C= 5A, V_{CE}= 3V	1500		30000	
f_T	Current-Gain—Bandwidth Product	I_C= 1A ; V_{CE}= 10V		20		MHz

Switching Times; Resistive Load

t_{on}	Turn-On Time	I_C= 5A; I_{B1}= -I_{B2}= 10mA V_{BB2}= 4V; R_L= 6Ω			2	μs
t_s	Storage Time				12	μs
t_f	Fall Time				5	μs