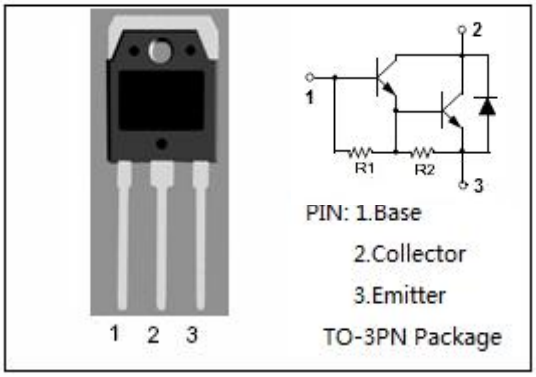
isc Silicon NPN Darlington Power Transistor 2SD1193



DESCRIPTION

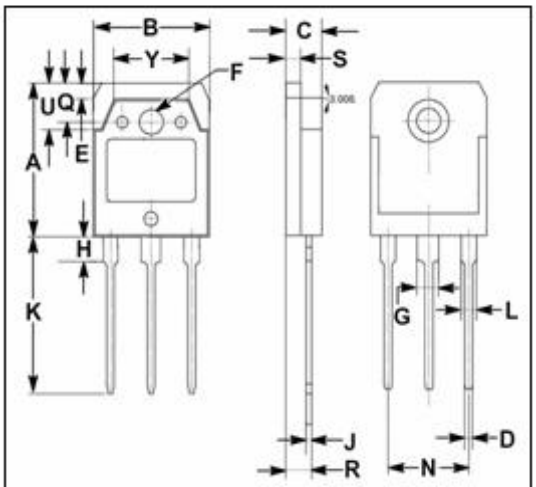
- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 60V(Min)
- High DC Current Gain
  : h_{FE}= 2000(Min) @I_C= 7.0A
- Low Saturation Voltage
- Complement to Type 2SB883
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for motor drivers, printer hammer drivers, relay drivers, voltage regulator control applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	70	V
V_{CEO}	Collector-Emitter Voltage	60	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	15	A
I_{CP}	Collector Current-Peak	20	A
P_C	Collector Power Dissipation @ T_C=25℃	70	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	MAX
A	19.60	20.30
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	19.80	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.20
Y	9.90	10.10

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 30mA; R_{BE}= ∞	60			V
$V_{(BR)CBO}$	Collector-Base Breakdown Voltage	I_C= 0.1mA; I_E= 0	70			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 7A; I_B= 14mA			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 7A; I_B= 14mA			2.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 40V; I_E= 0			0.1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			3.0	mA
h_{FE}	DC Current Gain	I_C= 7A; V_{CE}= 2V	2000			
f_T	Current-Gain—Bandwidth Product	I_C= 7A; V_{CE}= 5V		20		MHz