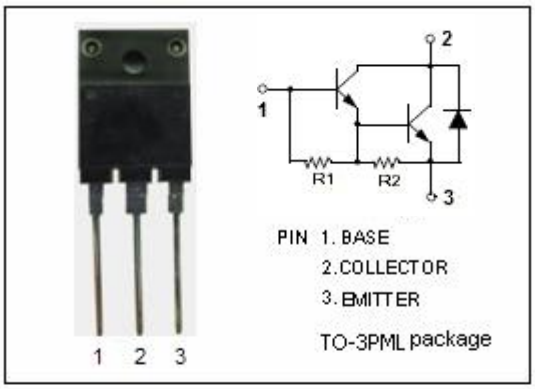
isc Silicon NPN Darlington Power Transistor 2SD2196

DESCRIPTION

- High DC Current Gain
  : h_{FE}= 1500(Min.)@ I_C= 10A, V_{CE}= 3V
- High Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$ = 200V(Min)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

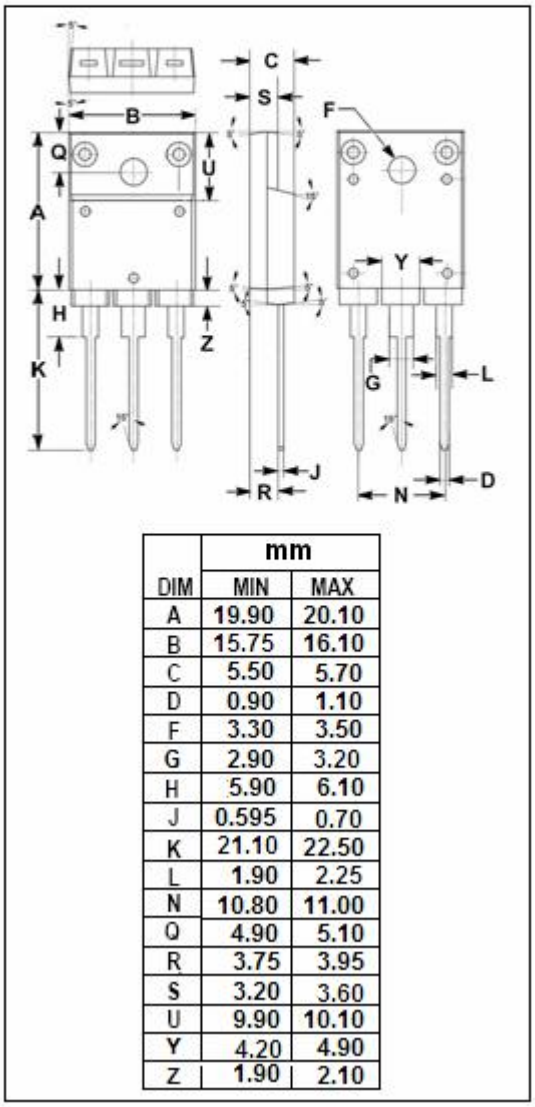
- Designed for general purpose amplifier applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	200	V
V_{CEO}	Collector-Emitter Voltage	200	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	15	A
I_{CM}	Collector Current-Peak	22	A
I_B	Base Current- Continuous	1	A
I_{BM}	Base Current- Peak	2	A
P_C	Collector Power Dissipation @T_C=25℃	65	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	1.92	℃/W



DIM	mm MIN	MAX
A	19.90	20.10
B	15.75	16.10
C	5.50	5.70
D	0.90	1.10
F	3.30	3.50
G	2.90	3.20
H	5.90	6.10
J	0.595	0.70
K	21.10	22.50
L	1.90	2.25
N	10.80	11.00
Q	4.90	5.10
R	3.75	3.95
S	3.20	3.60
U	9.90	10.10
Y	4.20	4.90
Z	1.90	2.10

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 10A, I_B= 30mA			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 10A, I_B= 30mA			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
f_T	Current-Gain—Bandwidth Product	I_C= 1.5A; V_{CE}= 10V		20		MHz
h_{FE}	DC Current Gain	I_C= 10A; V_{CE}= 3V	1500		30000	
Switching Times						
t_{on}	Turn-On Time	I_C = 10A,I_{B1} = I_{B2}= 30mA; R_L= 3Ω ; V_{BB2}= 4V			2	μs
t_{stg}	Storage Time				12	μs
t_f	Fall Time				5	μs

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