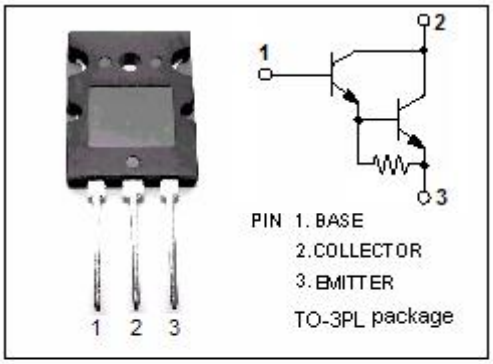
isc Silicon NPN Darlington Power Transistor 2SD2222

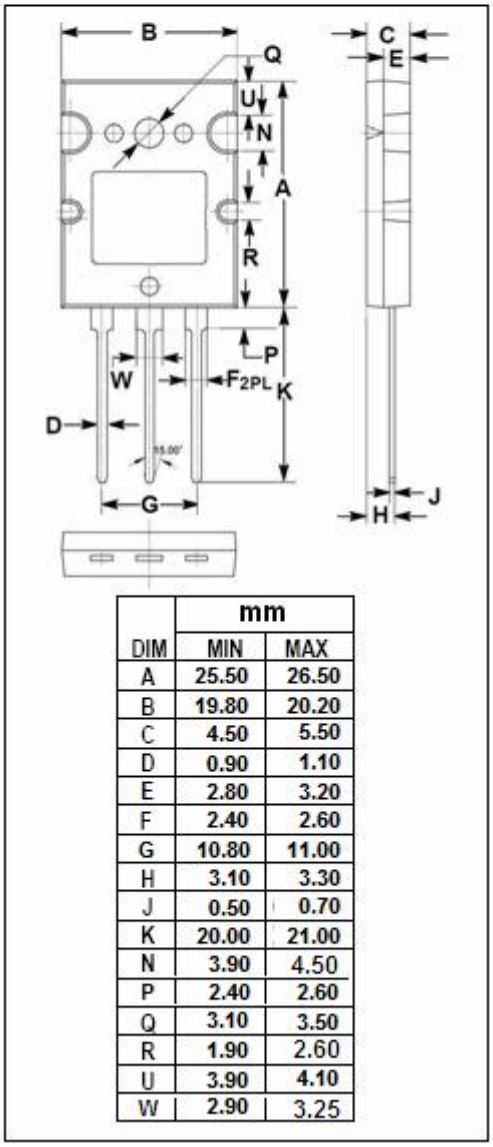
DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 160V(Min)
- High DC Current Gain-
  : h_{FE}= 3500(Min.) @(I_C= 7A, V_{CE}= 5V)
- Low Collector Saturation Voltage-
  : $V_{CE(sat)}$= 3.0V(Max)@ (I_C= 7A, I_B= 7mA)
- Complement to Type 2SB1470
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Designed for power amplification.



DIM	mm MIN	mm MAX
A	25.50	26.50
B	19.80	20.20
C	4.50	5.50
D	0.90	1.10
E	2.80	3.20
F	2.40	2.60
G	10.80	11.00
H	3.10	3.30
J	0.50	0.70
K	20.00	21.00
N	3.90	4.50
P	2.40	2.60
Q	3.10	3.50
R	1.90	2.60
U	3.90	4.10
W	2.90	3.25

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	160	V
V_{CEO}	Collector-Emitter Voltage	160	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	8	A
I_{CM}	Collector Current-Peak	15	A
P_C	Collector Power Dissipation @T_a=25℃	3.5	W
	Collector Power Dissipation @T_C=25℃	150	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~150	℃

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ELECTRICAL CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 30mA ; I_B= 0	160			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 7A; I_B= 7mA			3.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 7A; I_B= 7mA			3.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 160V; I_E= 0			100	μA
I_{CEO}	Collector Cutoff Current	V_{CE}= 160V; I_B= 0			100	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			100	μA
h_{FE-1}	DC Current Gain	I_C= 1A; V_{CE}= 5V	1000			
h_{FE-2}	DC Current Gain	I_C= 7A; V_{CE}= 5V	3500		20000	
f_T	Current-Gain—Bandwidth Product	I_C= 0.5A; V_{CE}= 10V		20		MHz

◆ **h_{FE-2} Classifications**

Q	P
3500-10000	7000-20000