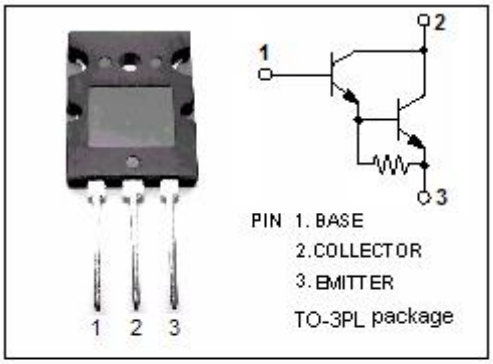
isc Silicon NPN Darlington Power Transistor — 2SD2385

DESCRIPTION

- Collector-Emitter Breakdown Voltage-
  : $V_{(BR)CEO}$= 140V(Min)
- High DC Current Gain-
  : h_{FE}= 5000(Min)@I_C= 7A
- Complement to Type 2SB1556
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

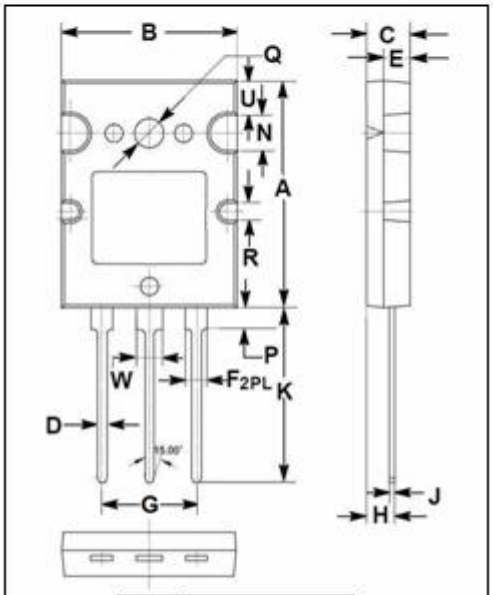


APPLICATIONS

- Designed for power amplifier applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	140	V
V_{CEO}	Collector-Emitter Voltage	140	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	8	A
I_B	Base Current-Continuous	0.1	A
P_C	Collector Power Dissipation @ T_C=25℃	100	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	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

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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= 50mA ; I_B= 0	140			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 7A; I_B= 7mA			2.5	V
$V_{BE(on)}$	Base-Emitter On Voltage	I_C= 7A ; V_{CE}= 5V			3.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 140V ; I_E=0			5	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C=0			5	μA
h_{FE-1}	DC Current Gain	I_C= 7A ; V_{CE}= 5V	5000		30000	
h_{FE-2}	DC Current Gain	I_C= 12A ; V_{CE}= 5V	2000			
C_{OB}	Output Capacitance	I_E=0 ; V_{CB}= 10V;f_{test}= 1.0MHz		110		pF
f_T	Current-Gain—Bandwidth Product	I_C= 1A ; V_{CE}= 5V		30		MHz

◆ **h_{FE-1} Classifications**

A	B	C
5000-12000	9000-18000	15000-30000