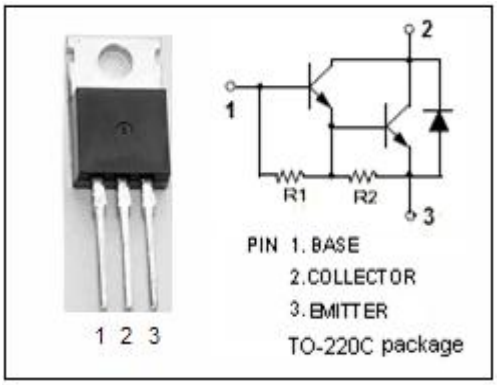
isc Silicon NPN Darlington Power Transistor 2SD1308

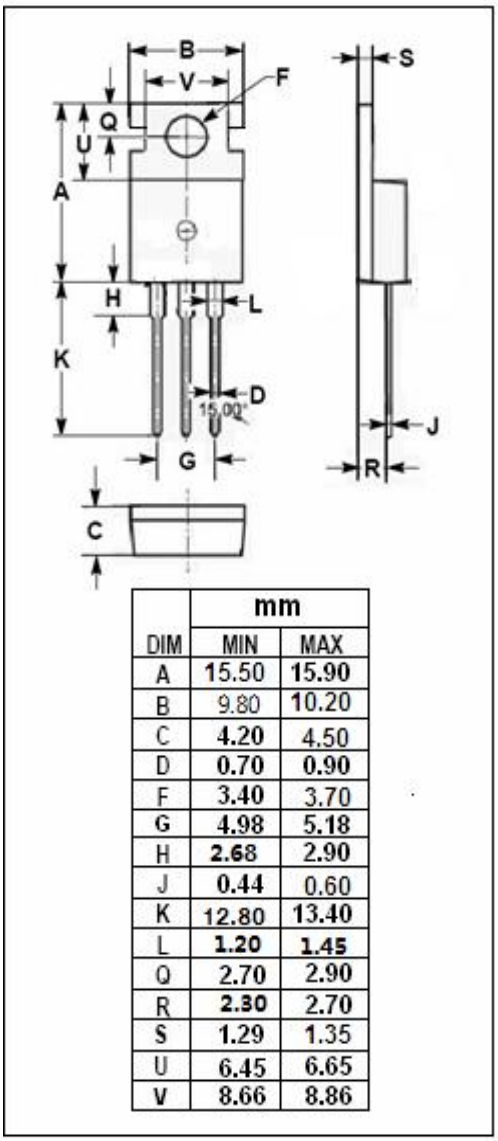


DESCRIPTION

- High DC Current Gain
  :h_{FE}= 2000(Min) @ I_C= 2A
- Collector-Emitter Sustaining Voltage-
  :$V_{CEO(SUS)}$= 100V (Min)
- Low Collector-Emitter Saturation Voltage-
  :$V_{CE(sat)}$= 1.5V (Max) @ I_C= 2A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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



DIM	mm MIN	mm MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

ABSOLUTE MAXIMUM RATINGS (T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	100	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current	5	A
I_{CM}	Collector Current-peak	10	A
I_B	Base Current	0.5	A
P_C	Collector Power Dissipation @T_C=25℃	30	W
	Collector Power Dissipation @T_a=25℃	1.5	
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃

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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= 30mA; I_B= 0	100			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 2A; I_B= 2mA			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 2A; I_B= 2mA			2.0	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 100V; I_E= 0			1.0	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			5	mA
h_{FE-1}	DC Current Gain	I_C= 2A; V_{CE}= 2V	2000		20000	
h_{FE-2}	DC Current Gain	I_C= 4A ; V_{CE}= 2V	500			
t_{on}	Turn-on Time	I_C= 2A ,R_L= 25Ω , V_{CC}≈ 50V; I_{B1}= -I_{B2}= 2mA,		1.0		μs
t_{stg}	Storage Time			3.5		μs
t_f	Fall Time			1.2		μs

◆ **h_{FE-1} Classifications**

M	L	K
2000-5000	4000-10000	8000-20000

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