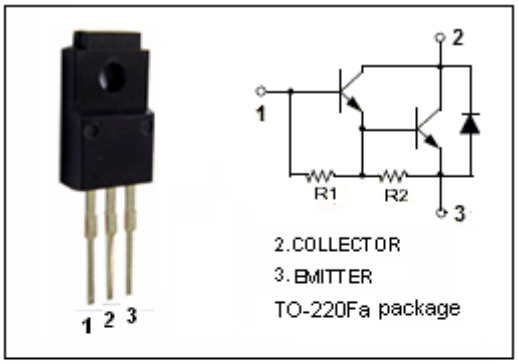
isc Silicon NPN Darlington Power Transistor 2SD1928

DESCRIPTION

- Collector-Emitter Saturation Voltage-
  : $V_{CE(sat)}$= 1.5V(Max) @I_C= 4A
- High DC Current Gain
  : h_{FE}= 2000(Min) @ I_C= 4A

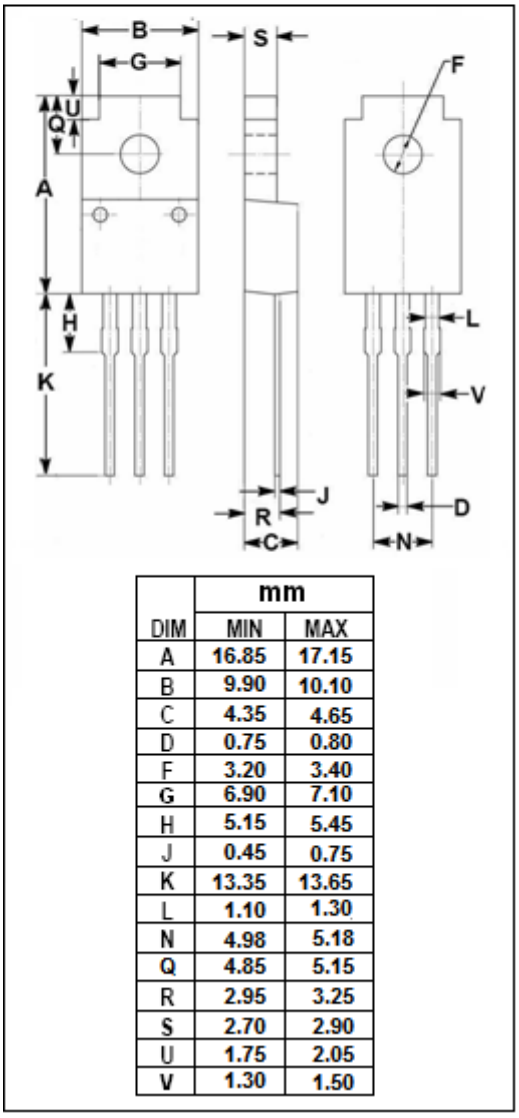


APPLICATIONS

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

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-Continuous	8	A
I_{CP}	Collector Current-Pulse	12	A
I_B	Base Current-Continuous	0.8	A
P_C	Collector Power Dissipation @ T_a=25℃	2	W
	Collector Power Dissipation @ T_C=25℃	25	
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	mm MAX
A	16.85	17.15
B	9.90	10.10
C	4.35	4.65
D	0.75	0.80
F	3.20	3.40
G	6.90	7.10
H	5.15	5.45
J	0.45	0.75
K	13.35	13.65
L	1.10	1.30
N	4.98	5.18
Q	4.85	5.15
R	2.95	3.25
S	2.70	2.90
U	1.75	2.05
V	1.30	1.50

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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= 4A; I_B= 4mA			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 4A; I_B= 4mA			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			3.0	mA
$h_{FE\ -1}$	DC Current Gain	I_C= 4A; V_{CE}= 2V	2000		20000	
$h_{FE\ -2}$	DC Current Gain	I_C= 6A; V_{CE}= 2V	500			

Switching times

t_{on}	Turn-on Time	I_C= 4A, I_{B1}= -I_{B2}= 4mA		0.4		μs
t_{stg}	Storage Time			2.5		μs
t_f	Fall Time			0.5		μs