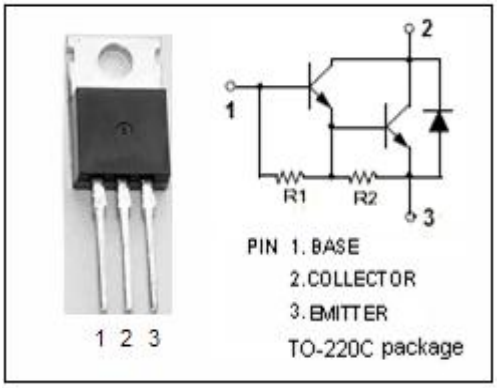
isc Silicon NPN Power Transistor 2SD1533



DESCRIPTION

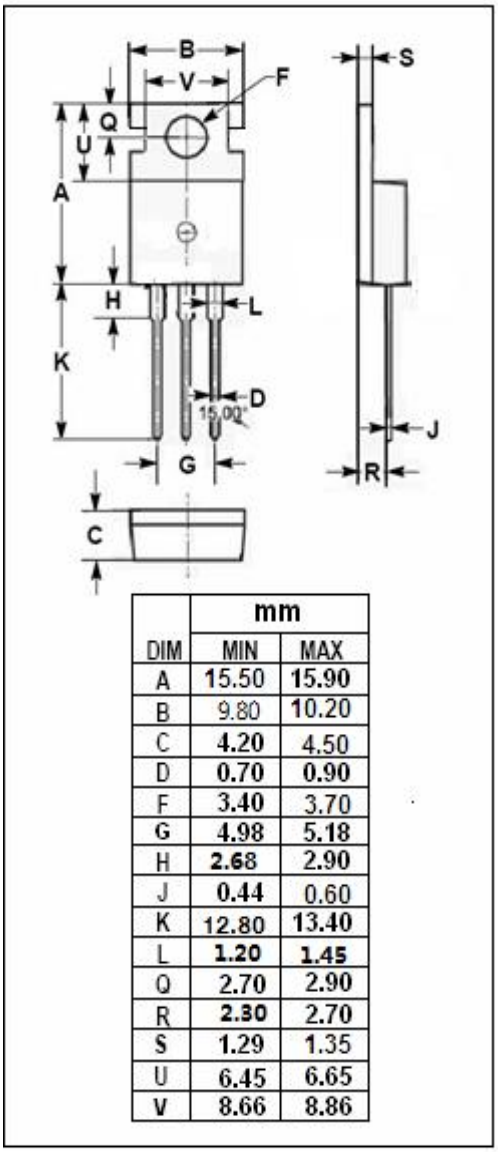
- Collector-Base Breakdown Voltage-
  : $V_{(BR)CBO}$ = 500V(Min.)
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for high power amplifier applications.

ABSOLUTE MAXIMUM RATINGS (T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	500	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	12	V
I_C	Collector Current	7	A
I_{CM}	Collector Current-peak	14	A
I_B	Base Current	0.5	A
P_C	Collector Power Dissipation @T_a=25℃	1.4	W
	Collector Power Dissipation @T_C=25℃	50	
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-55~150	℃



DIM	mm MIN	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

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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= 30mA; I_B= 0	400			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 7A; I_B= 70mA			2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 7A; I_B= 70mA			2.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 500V; I_E= 0			0.1	mA
I_{CEO}	Collector Cutoff Current	V_{CE}= 400V; I_B= 0			0.1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 12V; I_C= 0			100	mA
h_{FE-1}	DC Current Gain	I_C= 2A; V_{CE}= 2V	500			
h_{FE-2}	DC Current Gain	I_C= 6A; V_{CE}= 2V	200			
Switching Times						
t_{on}	Turn-on Time	I_C= 7A; I_{B1}= I_{B2}= 70mA, V_{CC}= 300V		1.5		μs
t_{stg}	Storage Time			5.0		μs
t_f	Fall Time			6.5		μs

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