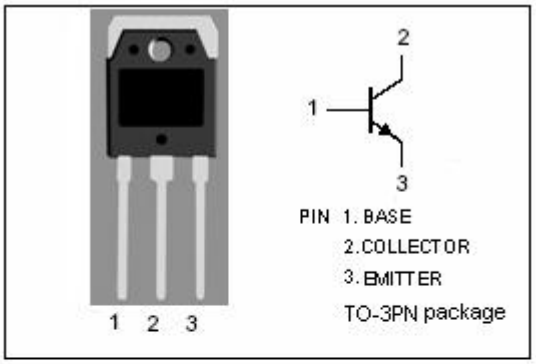
isc Silicon NPN Power Transistor 2SD1503

DESCRIPTION

- High Collector-Base Voltage -
  : V_{CBO}= 900V(Min)
- High Switching Speed
- Wide Area of Safe Operation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

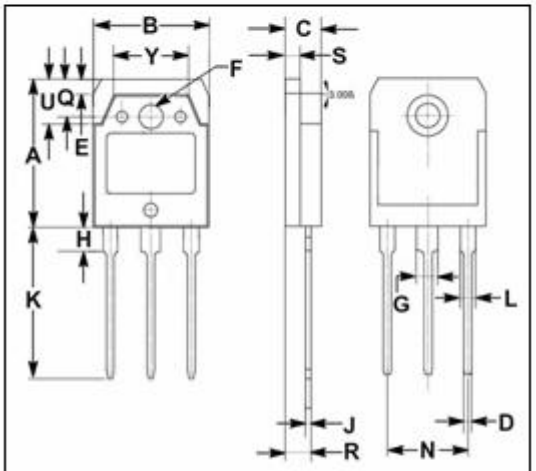


APPLICATIONS

- Designed for power amplifier and power switching applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	900	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	6	A
P_C	Collector Power Dissipation @T_C=25℃	50	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature Range	-65~150	℃



DIM	mm MIN	MAX
A	19.60	20.10
B	15.50	15.70
C	4.70	4.90
D	0.90	1.10
E	1.90	2.10
F	3.40	3.60
G	2.90	3.20
H	3.20	3.40
J	0.595	0.605
K	20.00	20.70
L	1.90	2.20
N	10.89	10.91
Q	4.90	5.10
R	3.35	3.45
S	1.995	2.100
U	5.90	6.10
Y	9.90	10.10

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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	400			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 4A; I_B= 0.8A			2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 4A; I_B= 0.8A			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 900V; I_E= 0			100	μA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5.0V ; I_C= 0			100	μA
h_{FE-1}	DC Current Gain	I_C= 1A ; V_{CE}= 5V	8		30	
h_{FE-2}	DC Current Gain	I_C= 4A ; V_{CE}= 5V	5			
f_T	Current-Gain—Bandwidth Product	I_C=0.5A;V_{CE}=10V;f_{test}=1.0MHz		7		MHz
Switching Times						
t_{stg}	Storage Time	I_C= 4A, I_{B1}= 0.8A; I_{B2}= -1.6A			3.0	μs
t_f	Fall Time				0.5	μs