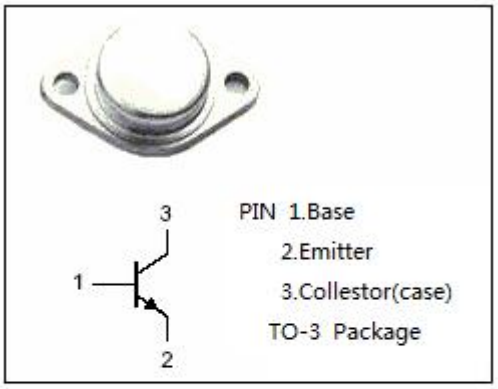
isc Silicon NPN Power Transistor — 2SD203

DESCRIPTION

- Excellent Safe Operating Area
- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= 100V(Min.)
- Low Collector Saturation Voltage-
- High Switching Speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

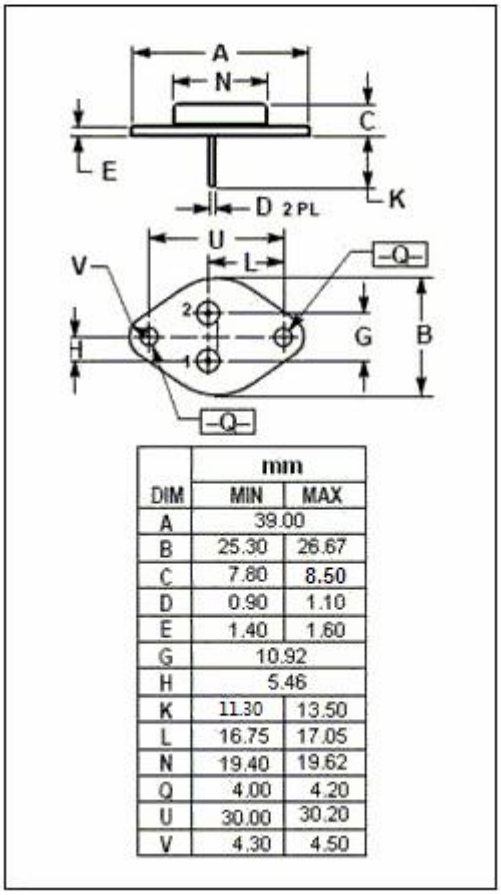


APPLICATIONS

- Designed for power amplifier and switching applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	MAX	UNIT
V_{CBO}	Collector-Base Voltage	130	V
V_{CEO}	Collector-Emitter Voltage	100	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	6	A
I_{CP}	Collector Current-Peak	10	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	39.00	
B	25.30	26.67
C	7.80	8.50
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.30	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 10mA ; I_B= 0	100		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C= 3A; I_B= 0.3A		1.0	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C= 6A; I_B= 0.6A		2.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 3A; I_B= 0.3A		1.5	V
I_{CEO}	Collector Cutoff Current	V_{CE}= 100V; I_B= 0		1.0	mA
I_{CBO}	Collector Cutoff Current	V_{CB}= 130V; I_E= 0		0.1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5.0V; I_C= 0		0.1	mA
h_{FE-1}	DC Current Gain	I_C= 3A ; V_{CE}= 4V	20	100	
h_{FE-2}	DC Current Gain	I_C= 6A ; V_{CE}= 4V	5		
f_T	Current Gain-Bandwidth Product	I_C= 0.5A ; V_{CE}= 10V;f= 0.5MHz	3.0		MHz