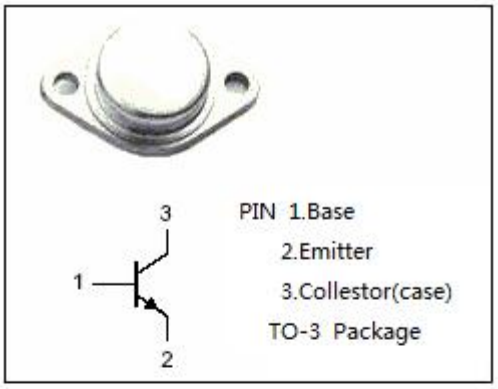
isc Silicon NPN Power Transistor — 2SC1609

DESCRIPTION

- With TO-3 Package
- High voltage
- Wide area of safe operation
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

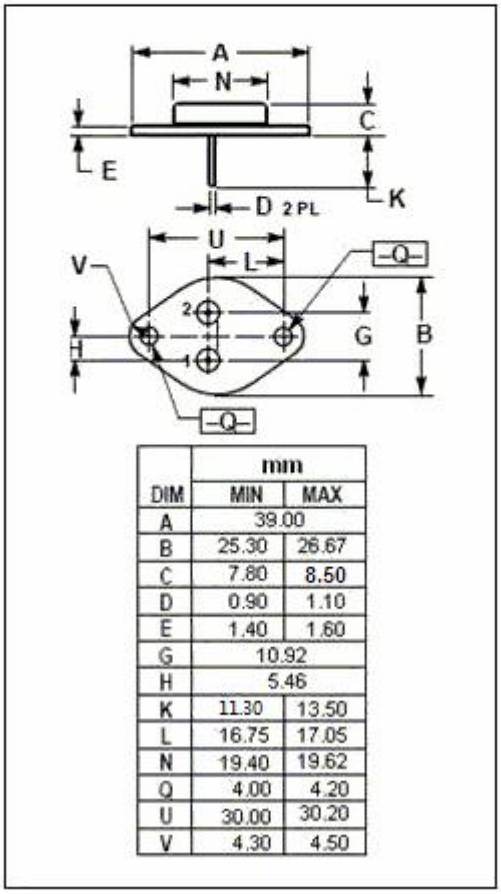
- Power amplifier applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	140	V
V_{CEO}	Collector-Emitter Voltage	120	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	25	A
P_C	Collector Power Dissipation	120	W
T_J	Junction Temperature	175	℃
T_{stg}	Storage Temperature Range	-55~175	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance, Junction to Case	1.25	℃/W



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	TYP.	MAX	UNIT
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	I_C=10A; I_B= 1.0A			0.6	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	I_C=20A; I_B= 2.0A			2.0	V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	I_C= 25mA; I_B= 0	120			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 1mA; I_C= 0	6			V
h_{FE-1}	DC Current Gain	I_C=13A; V_{CE}= 2V	20		100	
h_{FE-2}	DC Current Gain	I_C=20A; V_{CE}= 4V	10			