

isc Silicon NPN Power Transistor

2SC1431

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

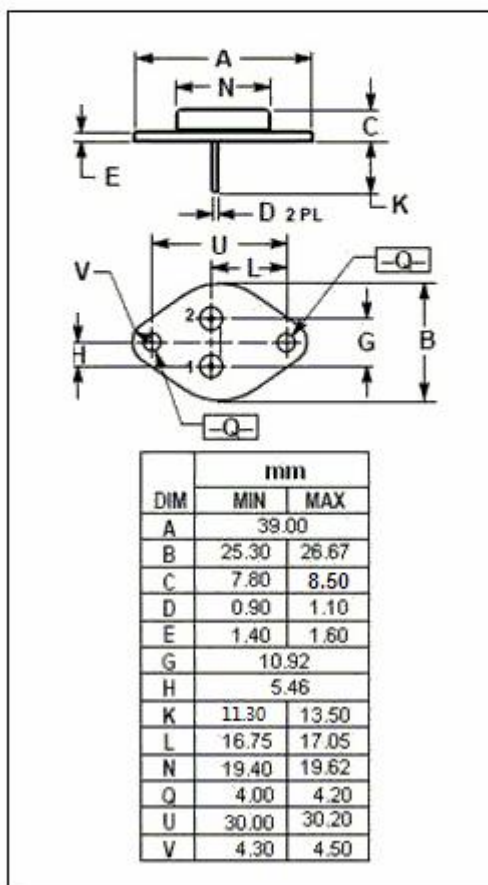
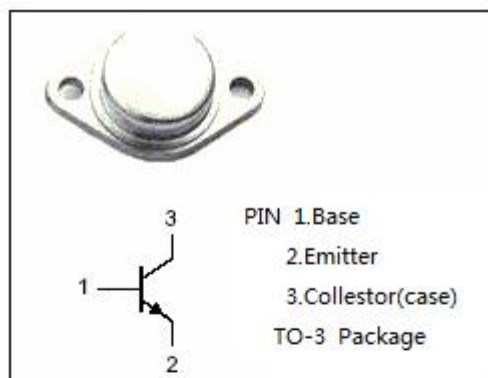
- Power amplifier applications

ABSOLUTE MAXIMUM RATINGS($T_a=25^{\circ}\text{C}$)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	110	V
V_{CEO}	Collector-Emitter Voltage	110	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	2	A
P_C	Collector Power Dissipation	23	W
T_J	Junction Temperature	-65~200	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-65~200	$^{\circ}\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	7.6	$^{\circ}\text{C/W}$



isc Silicon NPN Power Transistor**2SC1431****ELECTRICAL CHARACTERISTICS****T_c=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C =1.0A; I _B = 0.1A			1.0	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C =1.0A; I _B = 0.1A			1.2	V
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 10mA; I _B = 0	110			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 1mA; I _C = 0	5			V
h _{FE}	DC Current Gain	I _C =0.4A; V _{CE} = 2V	50		240	
I _{CBO}	Collector Cutoff Current	V _{CB} = 110V ; I _E = 0			100	uA
I _{EBO}	Emitter Cutoff Current	V _{EB} =5V; I _C = 0			100	uA

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