

isc Silicon NPN Power Transistor

2SC2023

DESCRIPTION

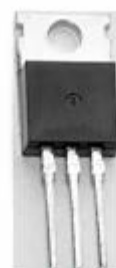
- Silicon NPN triple diffused planar transistor
- Collector-Emitter Breakdown Voltage-
:V_{(BR)CEO}= 300(V)(Min.)
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

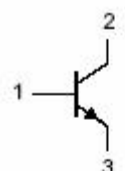
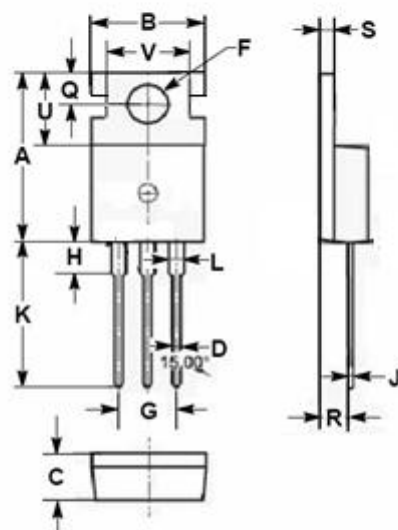
- Series regulator, switch and general purpose applications

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	300	V
V _{CEO}	Collector-Emitter Voltage	300	V
V _{EBO}	Emitter-Base Voltage	6	V
I _C	Collector Current-Continuous	2	A
P _C	Total Power Dissipation @ T _C =25°C	40	W
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



1 2 3


PIN 1. BASE
2. COLLECTOR
3. EMITTER
TO-220C package


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

isc Silicon NPN Power Transistor**2SC2023****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 25mA; I _B = 0	300			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 1.0A; I _B = 200mA			1.0	V
I _{CBO}	Collector Cutoff Current	V _{CB} = 300V; I _E = 0			1	mA
I _{EBO}	Emitter Cutoff Current	V _{EB} = 6V; I _C = 0			1	mA
h _{FE}	DC Current Gain	I _C = 0.5A; V _{CE} = 4V	30			
f _T	Current-Gain—Bandwidth Product	I _E = 200mA; V _{CE} = 12V		10		MHz

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