

INCHANGE Semiconductor

isc Product Specification

isc Silicon NPN Power Transistor

2SC2243

DESCRIPTION

- High Collector-Emitter Sustaining Voltage-
: $V_{CEO(SUS)} = 400V$ (Min)
- High Switching Speed

APPLICATIONS

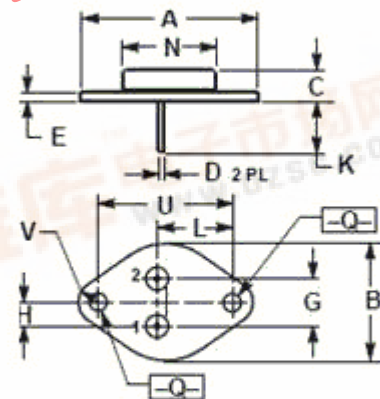
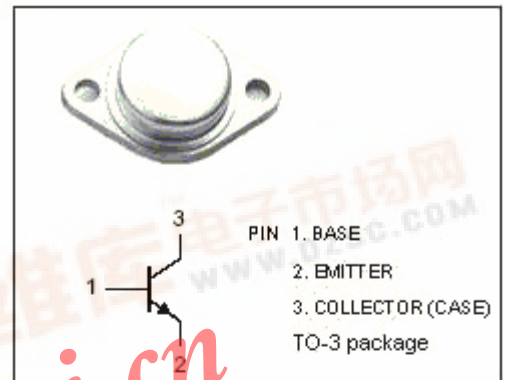
- Power switching
- Power amplification
- Power driver

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

SYMBOL	PARAMETER	MAX	UNIT
V_{CBO}	Collector-Base Voltage	450	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Peak	10	A
I_B	Base Current-Continuous	2	A
P_C	Collector Power Dissipation @ $T_C=25^{\circ}C$	100	W
T_j	Junction Temperature	200	$^{\circ}C$
T_{stg}	Storage Temperature Range	-65~200	$^{\circ}C$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.0	$^{\circ}C/W$



DIM	mm	
	MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.30
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.40	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

 $T_C=25^{\circ}\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=100\text{mA}$; $L=25\text{mH}$	400			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=2\text{A}$; $I_B=0.4\text{A}$			1.2	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=2\text{A}$; $I_B=0.4\text{A}$			1.5	V
h_{FE}	DC Current Gain	$I_C=2\text{A}$; $V_{CE}=5\text{V}$	10			
I_{CBO}	Collector Cutoff Current	$V_{CB}=450\text{V}$; $I_E=0$ $T_C=125^{\circ}\text{C}$			1.0 4.0	mA
I_{CEO}	Collector Cutoff Current	$V_{CE}=400\text{V}$; $I_B=0$			5.0	mA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}$; $I_C=0$			1.0	mA

Switching Times

t_r	Rise Time	$I_C=2\text{A}$; $I_{B1}=-I_{B2}=0.4\text{A}$			1.0	μs
t_{stg}	Storage Time				2.0	μs
t_f	Fall Time				1.0	μs