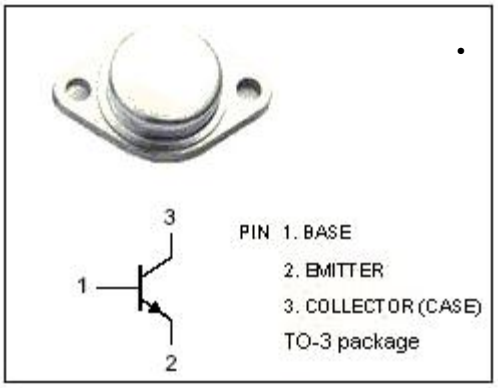
isc Silicon NPN Power Transistor 2SC2414



DESCRIPTION

High Switching Speed

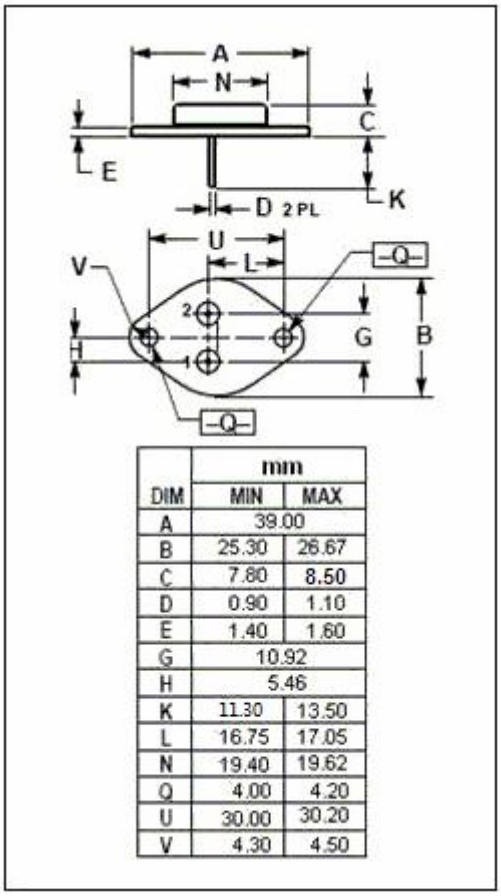
- Collector-Emitter Sustaining Voltage-
  : $V_{CEO(SUS)}$= 400V (Min)
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Designed for high speed power switching applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	MAX	UNIT
V_{CBO}	Collector-Base Voltage	500	V
V_{CEO}	Collector-Emitter Voltage	400	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	2	A
I_{CM}	Collector Current-Peak	4	A
P_C	Collector Power Dissipation @T_C=25℃	70	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

isc Silicon NPN Power Transistor 2SC2414

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 50mA ;L= 25mH	400			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 1A; I_B= 0.2A			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 1A; I_B= 0.2A			1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 500V; I_E= 0			0.1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 5V; I_C= 0			0.1	mA
h_{FE-1}	DC Current Gain	I_C= 0.1A ; V_{CE}= 5V	15			
h_{FE-2}	DC Current Gain	I_C= 1A ; V_{CE}= 5V	8			
f_T	Current-Gain—Bandwidth Product	I_C= 0.2A ; V_{CE}= 10V		11		MHz
Switching Times , Resistive Load						
t_{on}	Turn-On Time	I_C= 1A ;I_{B1}= -I_{B2}= 0.2A			1	μs
t_{stg}	Storage Time				3	μs
t_f	Fall Time				1	μs