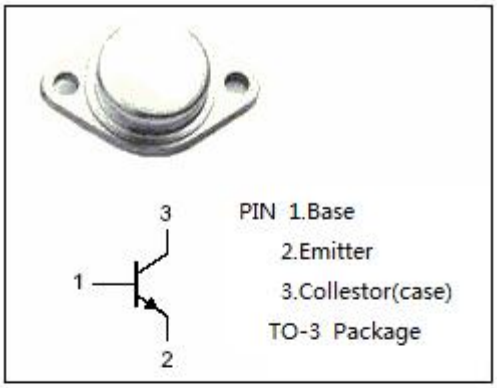
isc Silicon NPN Power Transistor 2N4114

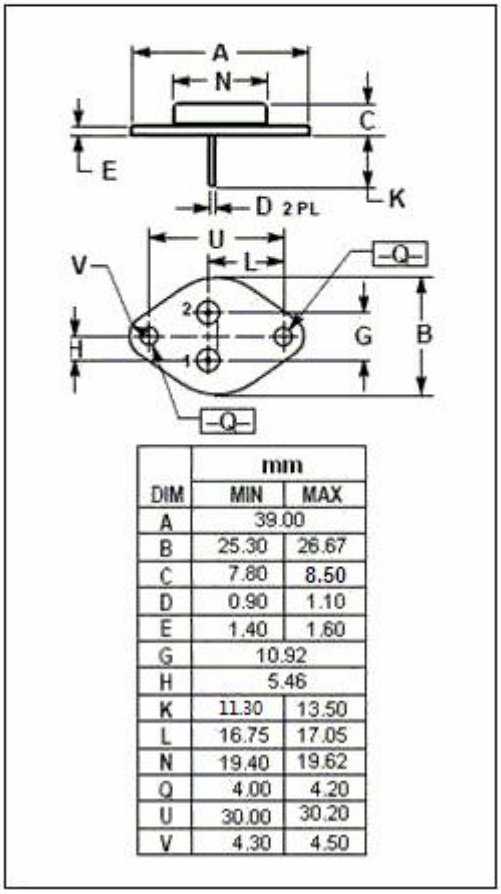
DESCRIPTION

- Excellent Safe Operating Area
- Low Collector-Emitter Saturation Voltage
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation.



APPLICATIONS

- Designed for general-purpose switching and amplifier applications



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

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	120	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	8	V
I_C	Collector Current-Continuous	5	A
P_C	Collector Power Dissipation@T_C=25℃	30	W
T_J	Operating Temperature Range	-65~+165	℃
T_{stg}	Storage Junction Temperature Range	-65~+165	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	4.67	℃/W

isc Silicon NPN Power Transistors 2N4114

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C=30mA ; I_B=0	80		V
I_{CEO}	Collector Cutoff Current	V_{CE}= 60V; I_B=0		0.1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 8.0V; I_C=0		1	mA
h_{FE}	DC Current Gain	I_C= 2A ; V_{CE}= 5V	100	200	
f_T	Current Gain-Bandwidth Product	I_C= 0.5A ; V_{CE}= 10V;f=1.0MHz	60		MHz