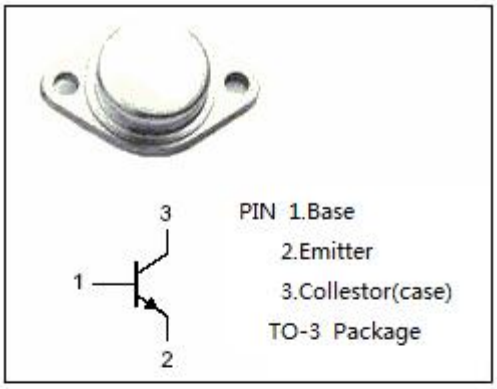
isc Silicon NPN Power Transistor 2SC1027

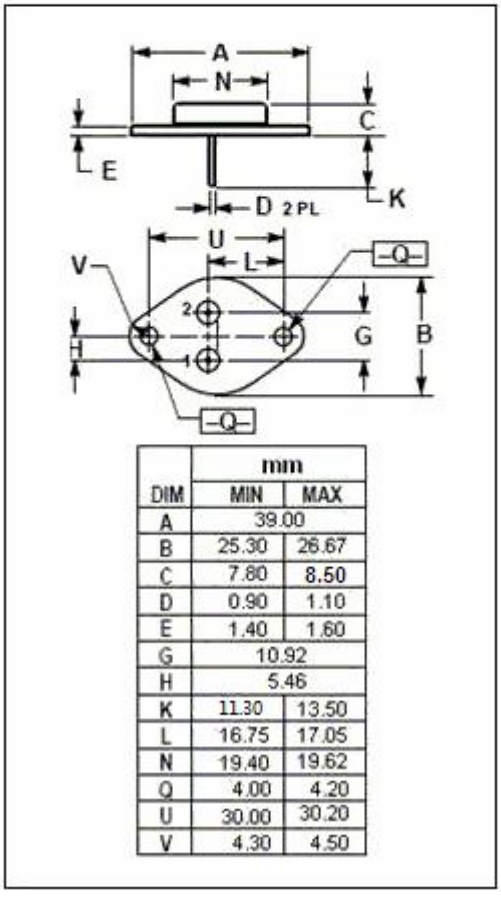
DESCRIPTION

- With TO-3 package
- High power dissipation
- Low collector saturation voltag
- Minimum Lot-to-Lot variations for robust device performance and reliable operation



APPLICATIONS

- Switching regulators
- DC-DC convertor
- General purpose power amplifiers



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	250	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	6	A
P_C	Collector Power Dissipation@T_C=25℃	50	W
T_J	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-55~+150	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.52	℃/W

isc Silicon NPN Power Transistors 2SC1027

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
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C =1mA ; I_E=0	250		V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	I_E =1mA ; I_C=0	6		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 5A; I_B= 0.5A		1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 5A; I_B= 0.5A		1.5	V
I_{CBO}	Collector Cutoff Current	V_{CB}= 250V; I_B=0		0.1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 6.0V; I_C=0		0.1	mA
h_{FE}	DC Current Gain	I_C= 5A ; V_{CE}= 2V	10		