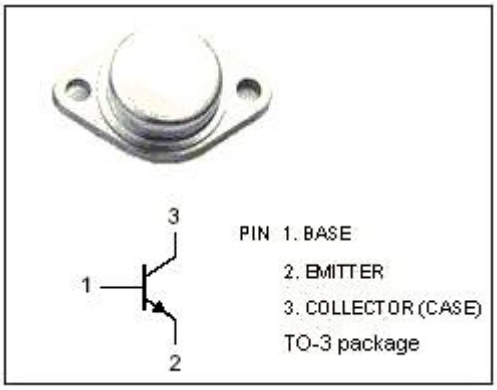
isc Silicon NPN Power Transistor 2SC1870

DESCRIPTION

- With TO-3 package
- High switching speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

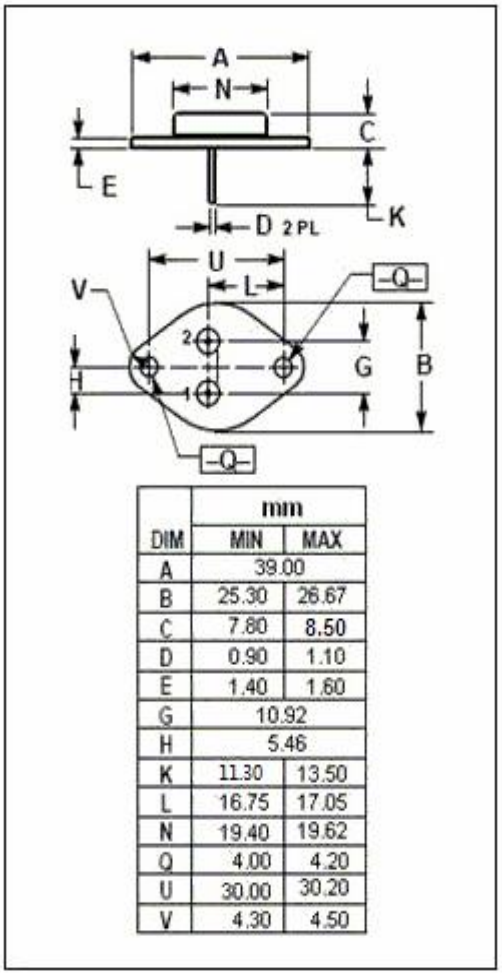


APPLICATIONS

For power switching applications

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	300	V
V_{CEO}	Collector-Emitter Voltage	250	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	10	A
I_B	Base Current-Continuous	3	A
P_D	Total Power Dissipation@T_C=25℃	100	W
T_j	Junction Temperature	150	℃
T_{stg}	Storage Temperature	-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

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.25	℃/W

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ELECTRICAL CHARACTERISTICS

Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	I_C= 10mA ;I_B= 0	250		V
$V_{(BR)CBO}$	Collector-base breakdown voltage	I_C=1mA ; I_E=0	300		V
$V_{(BR)EBO}$	Emitter-base breakdown voltag	I_E=1mA ; I_C=0	7		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 5A; I_B= 1A		1.0	V
$V_{BE(sat)}$	Base-emitter Saturation Voltage	I_C= 5A ; I_B= 1A		1.5	V
I_{CBO}	Collector Cutoff Current	V_{CE}=300V; I_B= 0		0.1	mA
I_{EBO}	Emitter Cutoff Current	V_{EB}= 7V; I_C= 0		0.1	mA
h_{FE}	DC Current Gain	I_C= 10A ; V_{CE}= 5V	15		