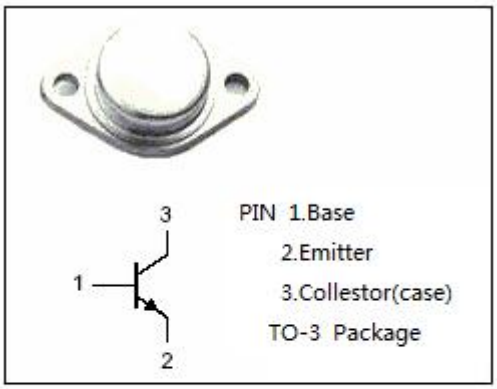
isc Silicon NPN Power Transistor 2N3863

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.

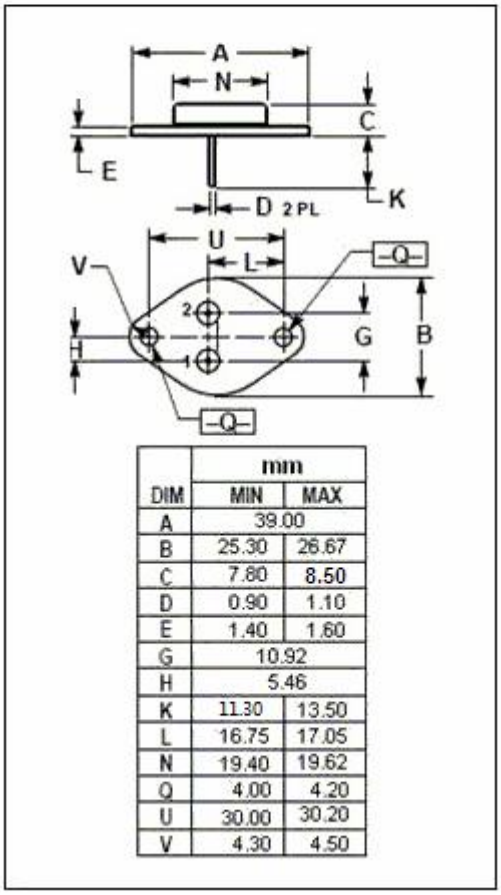


APPLICATIONS

- Designed for medium-speed switching and amplifier applications.

ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	70	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current-Continuous	7.5	A
P_C	Collector Power Dissipation@T_C=25℃	117	W
T_J	Junction Temperature	-65~200	℃
T_{stg}	Storage Temperature	-65~200	℃



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	1.5	℃/W

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ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CEO(SUS)}$*	Collector-Emitter Sustaining Voltage	I_C=200mA; I_B= 0	50		V
I_{EBO}	Emitter Cutoff Current	V_{EB}= 7V; I_C= 0		5	mA
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 3A; I_B= 0.2A		1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C=3A; I_B= 0.2A		2.0	V
h_{FE}	DC Current Gain	I_C= 3A; V_{CE}= 2V	30	60	

*:Pulse test:Pulse width=300us,duty cycle≤2%