

isc Silicon NPN Power Transistor

BUY12

DESCRIPTION

- Collector-Emitter Breakdown Voltage-
:V_{(BR)CEO}= 80V(Min.)
- High Speed Switching
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

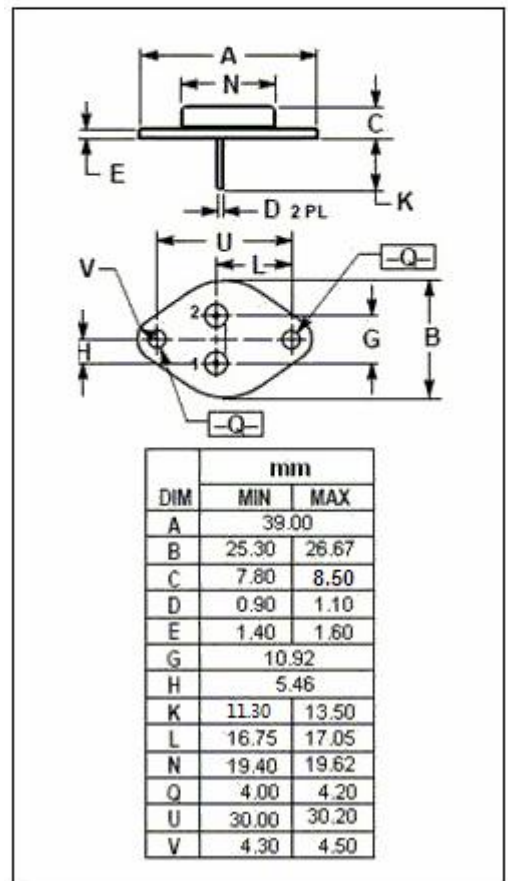
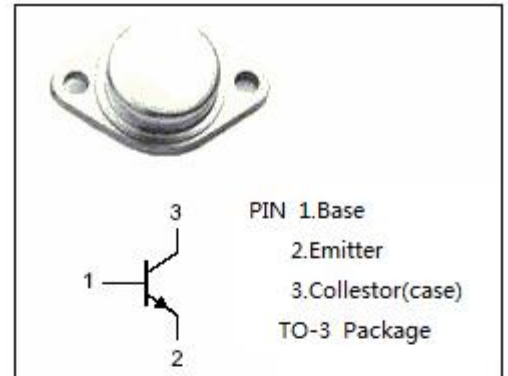
- Designed for use in switching mode power supply.

ABSOLUTE MAXIMUM RATINGS(T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	210	V
V _{CEO}	Collector-Emitter Voltage	80	V
V _{EBO}	Emitter-Base Voltage	7	V
I _C	Collector Current-Continuous	10	A
I _B	Base Current-Continuous	3	A
P _T	Total Power Dissipation @ T _C ≤25°C	100	W
T _J	Junction Temperature	200	°C
T _{stg}	Storage Temperature Range	-65~200	°C

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
R _{th j-c}	Thermal Resistance, Junction to Case	1.25	°C/W



isc Silicon NPN Power Transistor**BUY12****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 10mA; I _B = 0	80			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = 5A; I _B = 0.5A			1.2	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} = 210V; I _E = 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 = 8A; V _{CE} = 5V	10			
f _T	Current-Gain—Bandwidth Product	I _C =0.5A; V _{CE} =10V	10			MHz

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