

isc Silicon NPN Power Transistor

BU508A-M

DESCRIPTION

- Collector-Emitter Sustaining Voltage-  
:  $V_{CEO(SUS)} = 800V$  (Min)
- High Power Dissipation-  
:  $P_D = 100W @ T_C = 25^\circ C$

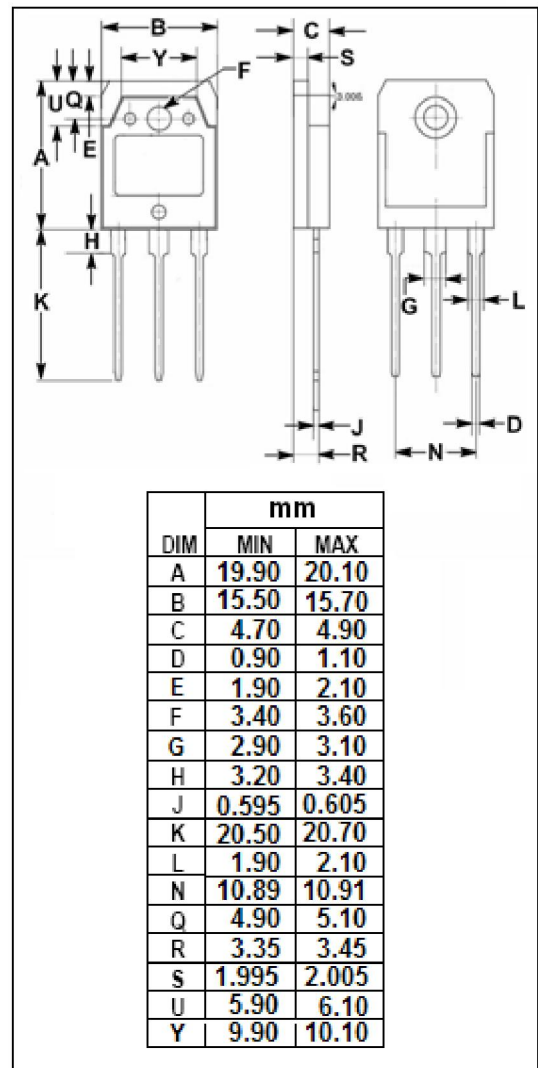
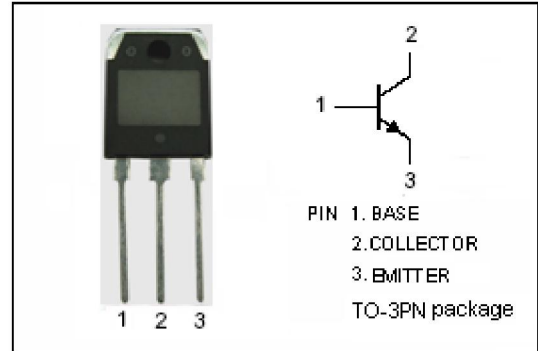
APPLICATIONS

- Designed for horizontal output applications.

ABSOLUTE MAXIMUM RATINGS( $T_a = 25^\circ C$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CES}$	Collector- Emitter Voltage( $V_{BE} = 0$ )	1500	V
$V_{CEO}$	Collector-Emitter Voltage	800	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current- Continuous	5	A
$I_{CM}$	Collector Current-Peak	16	A
$I_B$	Base Current- Continuous	4	A
$I_{BM}$	Base Current-Peak	6	A
$P_C$	Collector Power Dissipation @ $T_C = 25^\circ C$	100	W
$T_J$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-65~150	$^\circ C$

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.0	$^\circ C/W$



**isc Silicon NPN Power Transistor****BU508A-M****ELECTRICAL CHARACTERISTICS**T<sub>C</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = 100mA; I <sub>B</sub> = 0	800			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 4.5A; I <sub>B</sub> = 2.0A			1.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 4.5A; I <sub>B</sub> = 2.0A			1.3	V
I <sub>CES</sub>	Collector Cutoff Current	V <sub>CE</sub> = 1500V; V <sub>BE</sub> = 0			1	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 6.0V; I <sub>C</sub> = 0			10	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 0.5A; V <sub>CE</sub> = 5V	8			
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 4A; V <sub>CE</sub> = 5V			10	
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = 0.1A; V <sub>CE</sub> = 5V;		3		MHz

## Switching times

t <sub>f</sub>	Fall Time	I <sub>C</sub> = 4A, I <sub>B1</sub> = 0.8A; I <sub>B2</sub> = -1.6A		0.4		μs
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