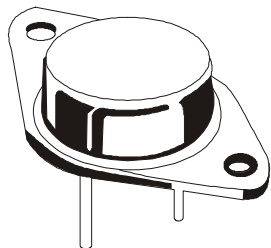


NPN SILICON PLANAR POWER TRANSISTOR

BU208A

TO-3
Metal Can Package



ABSOLUTE MAXIMUM RATINGS

DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Emitter Voltage	$V_{CEO(sus)}$	700	V
Collector Emitter Voltage	V_{CES}	1500	V
Emitter Base Voltage	V_{EBO}	5.0	V
Collector Current Continuous	I_C	5.0	A
Peak	I_{CM}	7.5	A
Base Current Continuous	I_B	4.0	A
Peak (Negative)	I_{BM}	3.5	A
Power Dissipation @ $T_c=95^\circ\text{C}$	P_D	12.5	W
Derate Above 95°C		0.625	W/ $^\circ\text{C}$
Operating and Storage Junction Temperature Range	T_j, T_{stg}	- 65 to +115	$^\circ\text{C}$

THERMAL RESISTANCE

Junction to Case	$R_{th(j-c)}$	1.6	$^\circ\text{C/W}$
Maximum Lead Temperature for Soldering Purpose 1/8" from Case for 5 Seconds	T_L	275	$^\circ\text{C}$

ELECTRICAL CHARACTERISTICS ($T_c=25^\circ\text{C}$ unless specified otherwise)

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	Typ	MAX	UNITS
Collector Emitter Sustaining Voltage	$V_{CEO(sus)}^*$	$I_C=100\text{mA}, L=25\text{mH}$	700			V
Collector Cut off Current	I_{CES}	$V_{CE}=\text{Rated } V_{CES}, V_{BE}=0$			1.0	mA
Emitter Base Voltage	V_{EBO}	$I_E=10\text{mA}, I_C=0$ $I_E=100\text{mA}, I_C=0$	5.0	7.0		V
DC Current Gain	h_{FE}^*	$I_C=4.5\text{A}, V_{CE}=5\text{V}$	2.25			
Collector Emitter Saturation Voltage	$V_{CE(sat)}^*$	$I_C=4.5\text{A}, I_B=2\text{A}$			1.0	V
Base Emitter Saturation Voltage	$V_{BE(sat)}^*$	$I_C=4.5\text{A}, I_B=2\text{A}$			1.5	V

Dynamic Characteristics

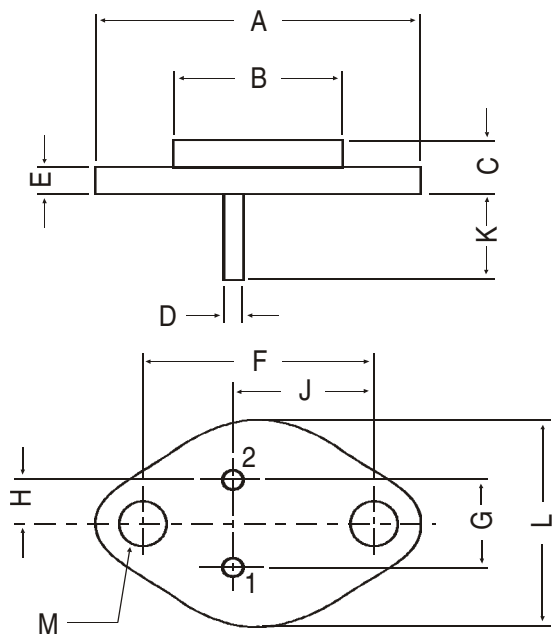
Current Gain Bandwidth Product	f_T	$I_C=0.1\text{A}, V_{CE}=5\text{V}, f=1\text{MHz}$		4.0		MHz
Output Capacitance	C_{ob}	$V_{CB}=10\text{V}, I_E=0, f=1\text{MHz}$		125		pF

Switching Characteristics

Storage Time	t_S	$I_C=4.5\text{A}, I_{B1}=1.8\text{A}, L_B=10\mu\text{H}$		8.0		μs
Fall Time	t_f	$I_C=4.5\text{A}, I_{B1}=1.8\text{A}, L_B=10\mu\text{H}$		0.4		μs

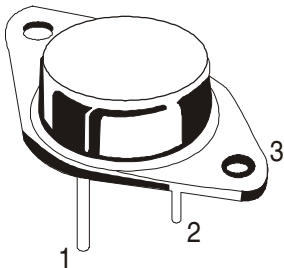
Pulse test: PW=300 μs ; Duty Cycle $\leq 2\%$

TO-3 Metal Can Package



DIM	MIN.	MAX.
A	—	39.37
B	—	22.22
C	6.35	8.50
D	0.96	1.09
E	—	1.77
F	29.90	30.40
G	10.69	11.18
H	5.20	5.72
J	16.64	17.15
K	11.15	12.25
L	—	26.67
M	3.84	4.19

All dimensions in mm.



- PIN CONFIGURATION
- 1. BASE
 - 2. EMITTER
 - 3. COLLECTOR

Packing Detail

PACKAGE	STANDARD PACK		INNER CARTON BOX		OUTER CARTON BOX		
	Details	Net Weight/ Qty	Size	Qty	Size	Qty	Gr Wt
TO-3	100 pcs/pkt	1.3 kg/100 pcs	12.5" x 8" x 1.8"	0.1 K	17" x 11.5" x 21"	2K	27.5 kgs

Disclaimer

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