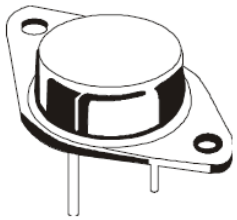
NPN-POWER TRANSISTOR

BU205
TO-3
Metal Can Package



ABSOLUTE MAXIMUM RATING

PARAMETER	SYMBOL	VALUE	UNITS
Collector-emitter voltage (V_{BE}=0)	V_{CES}	1500	V
Collector-emitter voltage (open base)	V_{CEO}	700	V
Emitter-base voltage (open collector)	V_{EBO}	5	V
Collector current	I_C	2.5	A
Collector current (Peak)*	I_{CM}	3.0	A
Base current (Peak)*	I_{BM}	2.5	A
Total power dissipation up to T_C = 25ºC	P_{tot}	36	W
Total power dissipation up to T_C = 90ºC		10	W
Derate above 90ºC		0.4	W/ºC
Junction temperature	T_J	200	ºC
Storage temperature	T_{stg}	-65 to 200	ºC

THERMAL RESISTANCE

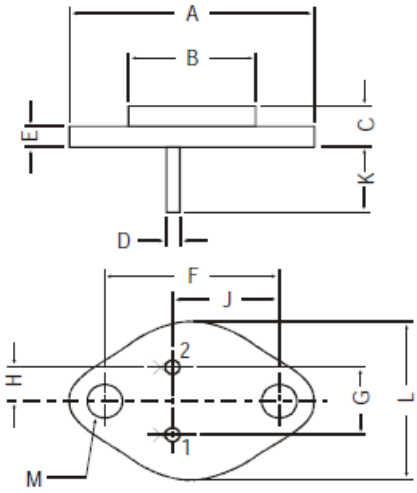
PARAMETER	SYMBOL	VALUE	UNITS
from junction to case	$R_{th\ J\text{-}C}$	2.5	ºC/W

ELECTRICAL CHARACTERISTICS (T_A=25ºC unless otherwise specified)

PARAMETER	SYMBOL	TEST CONDITIONS	VALUE		UNITS
			MIN	MAX	
Collector cut-off current	I_{CES}	V_{BE} = 0, V_{CE} = 1500V	-	1	mA
Collector -emitter sustaining voltage	$V_{CEO(sus)}$*	I_C=0.2A, I_B=0	700	-	V
Collector -emitter voltage	V_{CES}	I_C=1mA, V_{BE} = 0	1500	-	V
Emitter-base voltage	V_{EBO}	I_E=10mA, I_C=0	5	-	V
Collector-emitter saturation voltage	V_{CEsat}*	I_C= 2 A, I_B= 1 A	-	5	V
Base-emitter saturation voltage	V_{BEsat}*	I_C= 2 A, I_B= 1 A	-	1.5	V
D.C. Current gain	h_{FE}*	I_C= 2 A , V_{CE}= 5V	2	-	
Collector base capacitance at f=1MHz	C_C	I_E= 0 , V_{CB} = 10V	typ. 50		pF
Transition frequency	f_T	I_C= 0.1 A, V_{CE}= 5V, f=1MHz	typ. 4.0		MHz

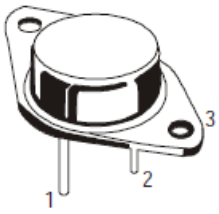
*Pulse test: pulse width = 300 µs, duty cycle ≤ 2%

TO-3 Metal Can Package



All dimensions in mm.

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



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"	0.1K	17" x 11.5" x 21"	2K	27.5 kgs

Customer Notes:

Component Disposal Instructions

1. CDIL Semiconductor Devices are RoHS compliant, customers are requested to please dispose as per prevailing Environmental Legislation of their Country.

2. In Europe, please dispose as per EU Directive 2002/96/EC on Waste Electrical and Electronic Equipment (WEEE).

DISCLAIMER

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