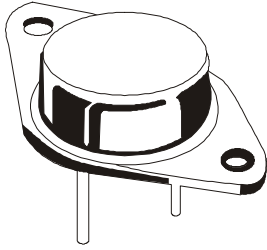


**NPN HIGH VOLTAGE SILICON POWER TRANSISTOR**

**BU109**



**TO-3  
Metal Can Package**

**HORIZONTAL DEFLECTION OUTPUT STAGE OF TVs and CRTs**

**ABSOLUTE MAXIMUM RATINGS (Ta=25°C unless specified otherwise)**

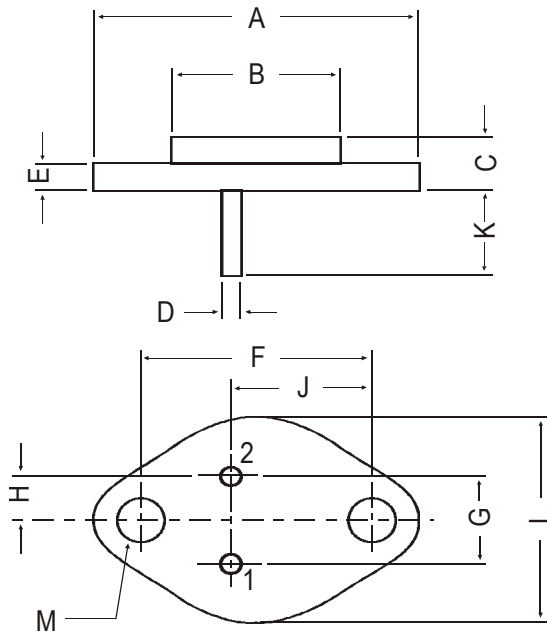
DESCRIPTION	SYMBOL	VALUE	UNITS
Collector Emitter Voltage	$V_{CEO}$	150	V
Collector Base Voltage	$V_{CBO}$	330	V
Emitter Base Voltage	$V_{EBO}$	6.0	V
Collector Emitter Voltage ( $V_{BE} = -1.5V$ )	$V_{CEV}$	330	V
Collector Current	$I_C$	7.0	A
Collector Peak Current (Repetitive)	$I_{CM}$	10.0	A
Collector Peak Current (t=10ms)	$I_{CM}$	15.0	A
Base Current	$I_B$	4.0	A
Total Power Dissipation@ $T_c \leq 25^\circ C$	$P_{tot}$	60	W
Junction Temperature	$T_j$	150	°C
Storage Temperature	$T_{stg}$	-65 To +150	°C
<b>THERMAL RESISTANCE</b>			
Junction to Ambient	$R_{th(j-a)}$	70	°C/W
Junction to Case	$R_{th(j-c)}$	2.08	°C/W

**ELECTRICAL CHARACTERISTICS (Ta=25°C unless specified otherwise)**

DESCRIPTION	SYMBOL	TEST CONDITION	MIN	MAX	UNITS
Collector Cut off Current	$I_{CES}$	$V_{CE}=330V, V_{BE}=0$		5.0	mA
		$V_{CE}=200V, V_{BE}=0$		100	µA
	$I_{CES}$	$V_{CE}=200V, V_{BE}=0$ $T_C=150^\circ C$		1.0	mA
Emitter Cut off Current	$I_{EBO}$	$V_{EB}=6V, I_C=0$		1.0	mA
Collector Emitter Saturation Voltage	$V_{CE(Sat)}$ *	$I_C=5A, I_B=0.5A$		1.0	V
Base Emitter Saturation Voltage	$V_{BE(Sat)}$ *	$I_C=5A, I_B=0.5A$		1.2	V
Transition Frequency	$f_T$	$I_C=0.5A, V_{CE}=10V$	10		MHz
Turn off Time	$t_{off}$	$I_C=5A, I_B \text{ end} = 0.5A$		0.75	us

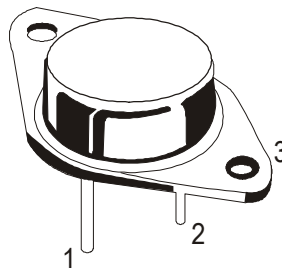
\*Pulse Test: Pulse Duration=300ms, Duty Cycle =1.5%

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

### **Disclaimer**

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