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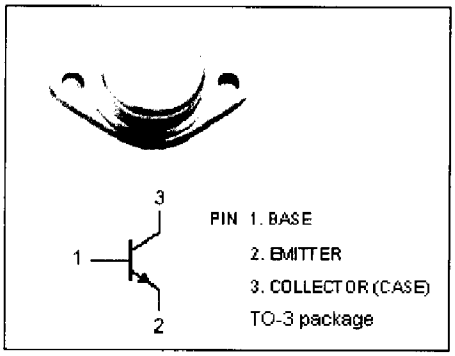
Silicon NPN Power Transistor — BU209

DESCRIPTION

- High Reverse Voltage
- High Peak Power
- Collector Current- I_C = 4A

APPLICATIONS

- Designed for use in horizontal deflection circuits in color TV receivers.

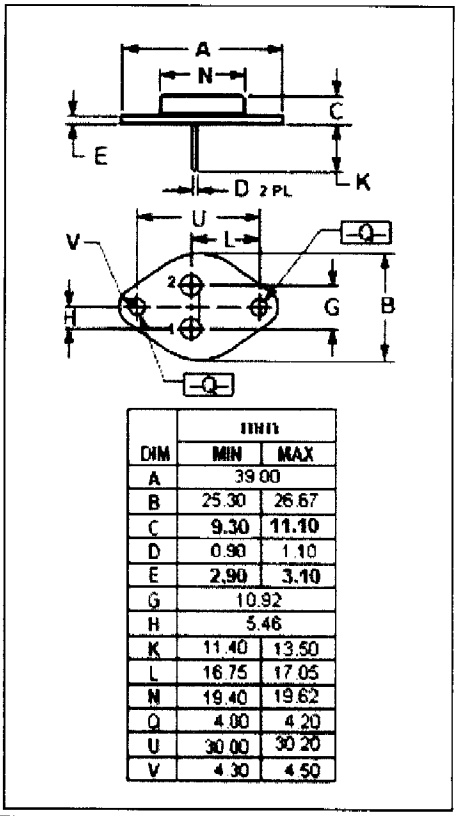


ABSOLUTE MAXIMUM RATINGS(T_a=25℃)

SYMBOL	PARAMETER	VALUE	UNIT
V_{CES}	Collector-Emitter Voltage	1700	V
V_{CEO}	Collector-Emitter Voltage	800	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	4	A
I_{CM}	Collector Current-Peak	7.5	A
I_B	Base Current-Continuous	2.5	A
I_{BM}	Base Current-Peak	4	A
P_C	Collector Power Dissipation @T_C≤95℃	12.5	W
T_J	Junction Temperature	115	℃
T_{stg}	Storage Temperature	-65~115	℃

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j\text{-}c}$	Thermal Resistance,Junction to Case	1.6	℃/W



DIM	mm MIN	MAX
A	39.00	
B	25.30	26.67
C	9.30	11.10
D	0.90	1.10
E	2.90	3.10
G	10.92	
H	5.46	
K	11.40	13.50
L	16.75	17.05
N	19.40	19.62
Q	4.00	4.20
U	30.00	30.20
V	4.30	4.50

ELECTRICAL CHARACTERISTICS

T_C=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CES}$	Collector-Emitter Breakdown Voltage	I_C= 1mA	1700			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	I_E= 100mA ; I_C= 0	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	I_C= 3A; I_B= 1.3A			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	I_C= 3A; I_B= 1.3A			1.5	V
h_{FE}	DC Current Gain	I_C= 3A ; V_{CE}= 5V	2.25			
C_{OB}	Output Capacitance	I_E= 0; V_{CB}= 10V;f_{test}= 1MHz		125		pF
f_T	Current-Gain—Bandwidth Product	I_C= 0.1A;V_{CE}= 5V;f_{test}= 5MHz		7		MHz

Switching Times

t_s	Storage Time	I_C= 3A; I_B= 1.8A;L_B= 10 μ H			10	μ s
t_f	Fall Time				0.7	μ s