

Silicon NPN Power Transistor

BU209

DESCRIPTION

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

APPLICATIONS

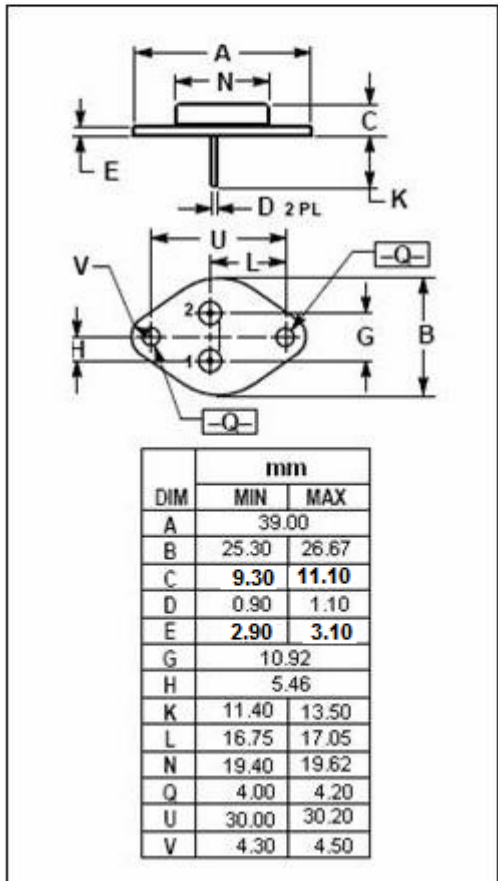
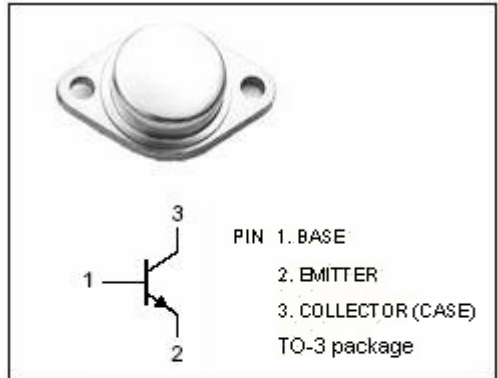
- Designed for use in horizontal deflection circuits in color TV receivers.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CES}	Collector-Emitter Voltage	1200	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
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.6	/W



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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	1200			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