

isc Silicon NPN Power Transistor**BU209****DESCRIPTION**

- High Reverse Voltage
- High Peak Power
- Collector Current- $I_C = 4A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

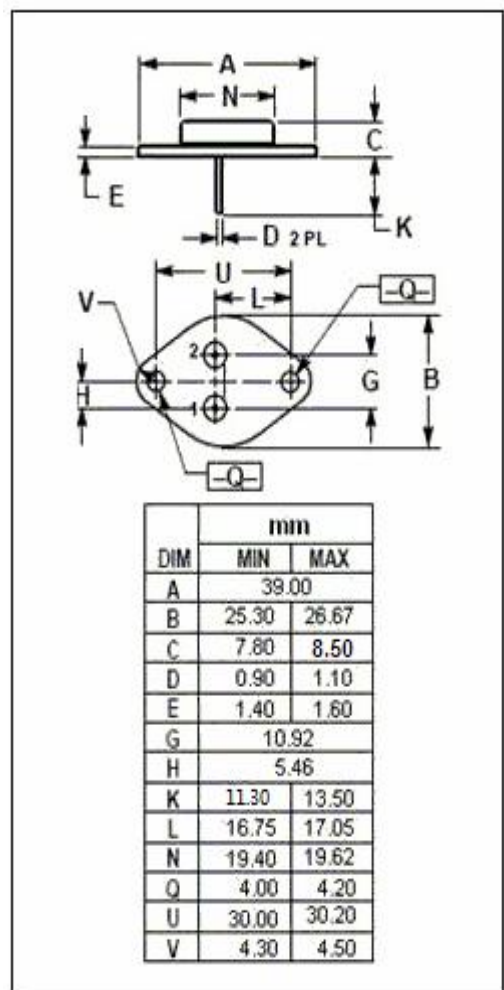
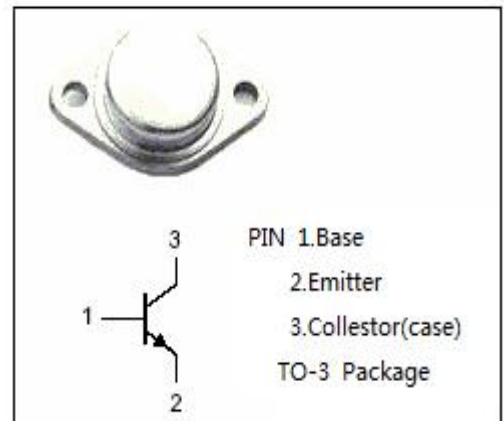
- Designed for use in horizontal deflection circuits in color TV receivers.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CES}	Collector-Emitter Voltage	1300	V
V_{CEO}	Collector-Emitter Voltage	750	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 @ $T_C \leq 95^\circ\text{C}$	12.5	W
T_J	Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature	-65~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

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



isc Silicon NPN Power Transistor**BU209****ELECTRICAL CHARACTERISTICS****T_C=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CES}	Collector-Emitter Breakdown Voltage	I _C = 10mA	1300			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 10mA ; 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

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