

**DESCRIPTION**

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

**APPLICATIONS**

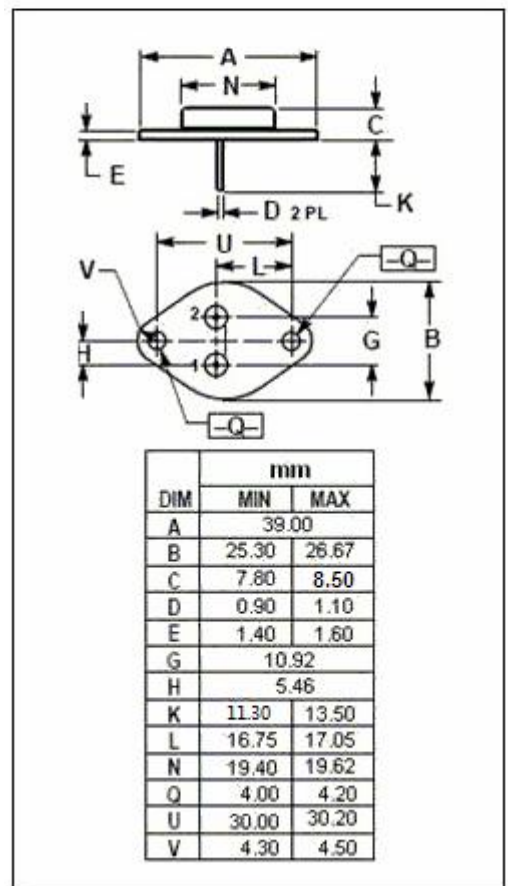
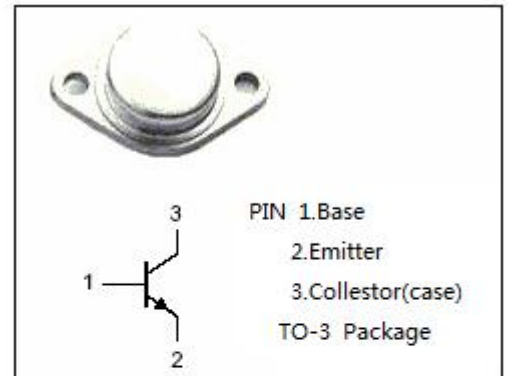
- Designed for use in horizontal deflection circuits in color TV receivers.

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

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

**THERMAL CHARACTERISTICS**

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



**SPTECH Silicon NPN Power Transistor**

**BU209**

**ELECTRICAL CHARACTERISTICS**

$T_C=25^{\circ}\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CES}$	Collector-Emitter Breakdown Voltage	$I_C= 10\text{mA}$	1300			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E= 10\text{mA} ; I_C= 0$	5			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 3\text{A} ; I_B= 1.3\text{A}$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 3\text{A} ; I_B= 1.3\text{A}$			1.5	V
$h_{FE}$	DC Current Gain	$I_C= 3\text{A} ; V_{CE}= 5\text{V}$	2.25			
$C_{OB}$	Output Capacitance	$I_E= 0 ; V_{CB}= 10\text{V} ; f_{test}= 1\text{MHz}$		125		pF
$f_T$	Current-Gain—Bandwidth Product	$I_C= 0.1\text{A} ; V_{CE}= 5\text{V} ; f_{test}= 5\text{MHz}$		7		MHz

Switching Times

$t_s$	Storage Time	$I_C= 3\text{A} ; I_B= 1.8\text{A} ; L_B= 10 \mu \text{H}$			10	$\mu \text{s}$
$t_f$	Fall Time				0.7	$\mu \text{s}$