

## DESCRIPTION

- High Switching Speed
- High Voltage
- Built-in Integrated Diode
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

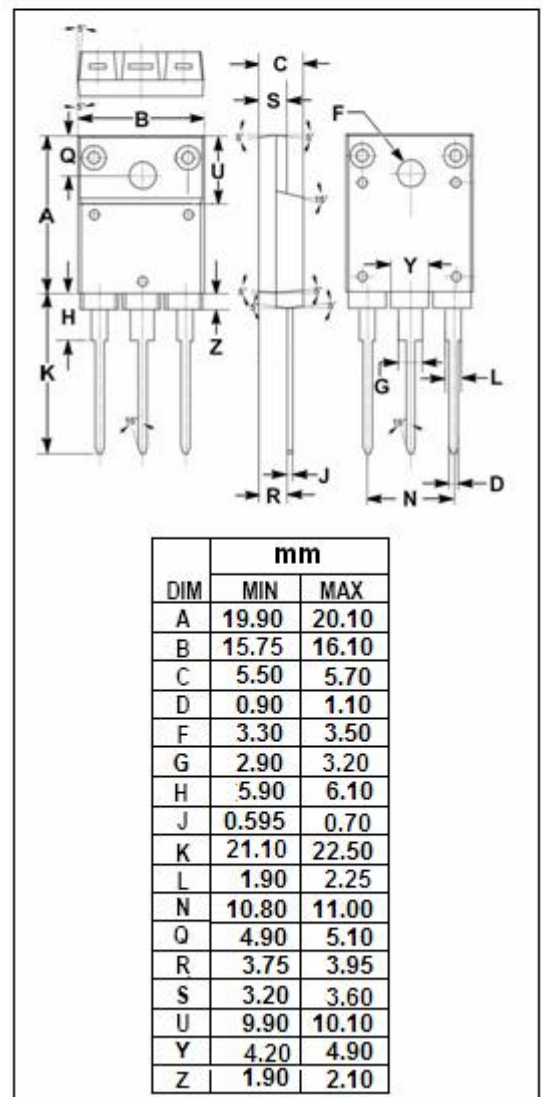
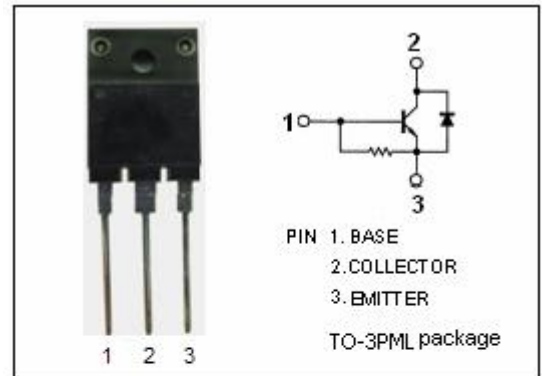
- Designed for use in horizontal deflection circuits of colour TV receivers.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	1500	V
$V_{CEO}$	Collector-Emitter Voltage	700	V
$V_{EBO}$	Emitter-Base Voltage	10	V
$I_C$	Collector Current-Continuous	7	A
$I_{CM}$	Collector Current-Peak	12	A
$I_B$	Base Current	4	A
$I_{BM}$	Base Current-Peak	7	A
$P_C$	Collector Power Dissipation @ $T_c=25^{\circ}\text{C}$	55	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	2.27	$^{\circ}\text{C/W}$



## isc Silicon NPN Power Transistor

## BUH417D

## ELECTRICAL CHARACTERISTICS

T<sub>C</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP	MAX	UNIT
V <sub>CEQ(SUS)</sub>	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = 50mA ; I <sub>B</sub> = 0	700			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 4A; I <sub>B</sub> = 1A			1.5	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 4A ; I <sub>B</sub> = 1A			1.3	V
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 5V; I <sub>C</sub> =0			200	mA
I <sub>CES</sub>	Collector Cutoff Current	V <sub>CB</sub> = BV <sub>CBO</sub> ; I <sub>E</sub> = 0 V <sub>CB</sub> = BV <sub>CBO</sub> ; I <sub>E</sub> = 0; T <sub>C</sub> =125°C			1.0 2.0	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 1A ; V <sub>CE</sub> = 5V	8		36	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 4A ; V <sub>CE</sub> = 5V	6			
V <sub>ECF</sub>	C-E Diode Forward Voltage	I <sub>F</sub> = 4A			2.0	V

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