

# isc Silicon NPN Power Transistor

# BUH1215

## DESCRIPTION

- Collector-Emitter Sustaining Voltage-  
:  $V_{CEO(SUS)} = 700V(\text{Min.})$
- High Speed Switching
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

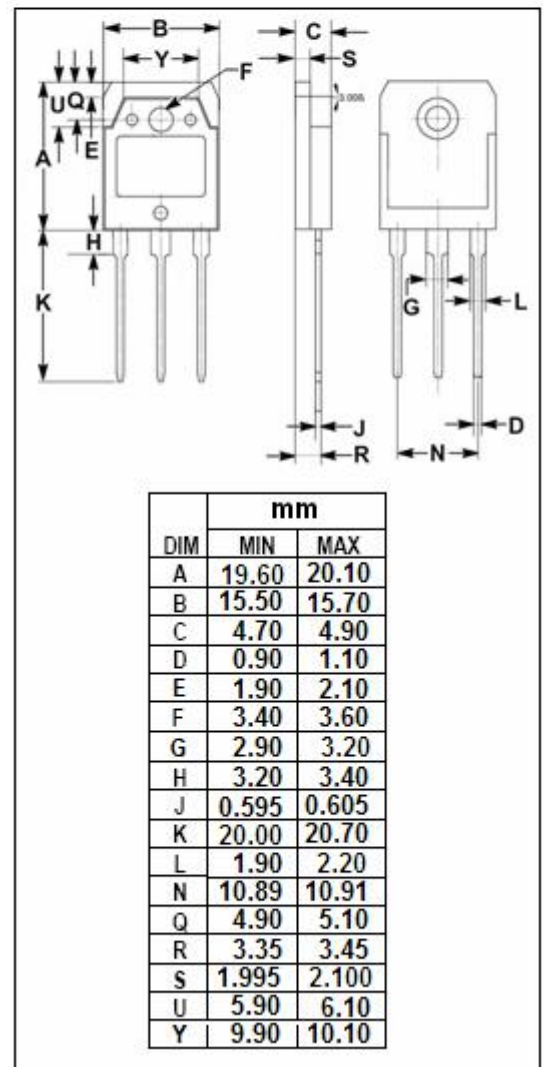
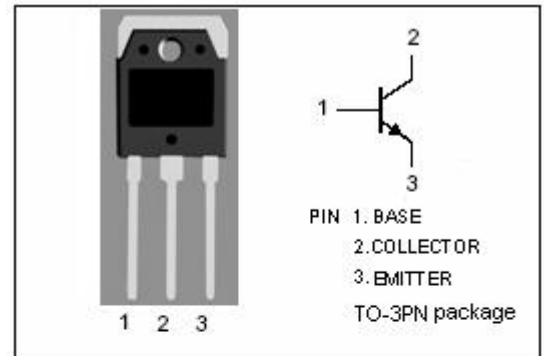
- Designed for use in horizontal deflection circuits in televisions and monitors.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CES}$	Collector-Base Voltage $V_{BE} = 0$	1500	V
$V_{CEO}$	Collector-Emitter Voltage	700	V
$V_{EBO}$	Emitter-Base Voltage	10	V
$I_C$	Collector Current-Continuous	16	A
$I_{CM}$	Collector Current-Peak	22	A
$I_B$	Base Current-Continuous	9	A
$P_C$	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	200	W
$T_j$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-65~150	$^\circ\text{C}$

## THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{thj-c}$	Thermal Resistance, Junction to Case	0.63	$^\circ\text{C}/\text{W}$



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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=50\text{mA}; I_B=0$	700			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E=10\text{mA}; I_C=0$	10			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=12\text{A}; I_B=2.4\text{A}$			1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=12\text{A}; I_B=2.4\text{A}$			1.5	V
$I_{CES}$	Collector Cutoff Current	$V_{CE}=1500\text{V}$ $V_{CE}=1500\text{V}; T_C=125^{\circ}\text{C}$			0.2 2.0	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			0.1	mA
$h_{FE}$	DC Current Gain	$I_C=12\text{A}; V_{CE}=5\text{V}$	7		14	

**Switching Times**

$t_s$	Storage Time	$I_C=12\text{A}; I_{B1}=2\text{A}; I_{B2}=6\text{A};$		1.5		$\mu\text{s}$
$t_f$	Fall Time			0.11		$\mu\text{s}$

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