

**isc Silicon NPN Power Transistor**

**BU408D**

**DESCRIPTION**

- High Voltage:  $V_{CEV} = 400V(\text{Min})$
- Fast Switching Speed-  
:  $t_f = 0.5 \mu s(\text{Max})$
- Low Saturation Voltage-  
:  $V_{CE(\text{sat})} = 1.0V(\text{Max}) @ I_C = 6A$

**APPLICATIONS**

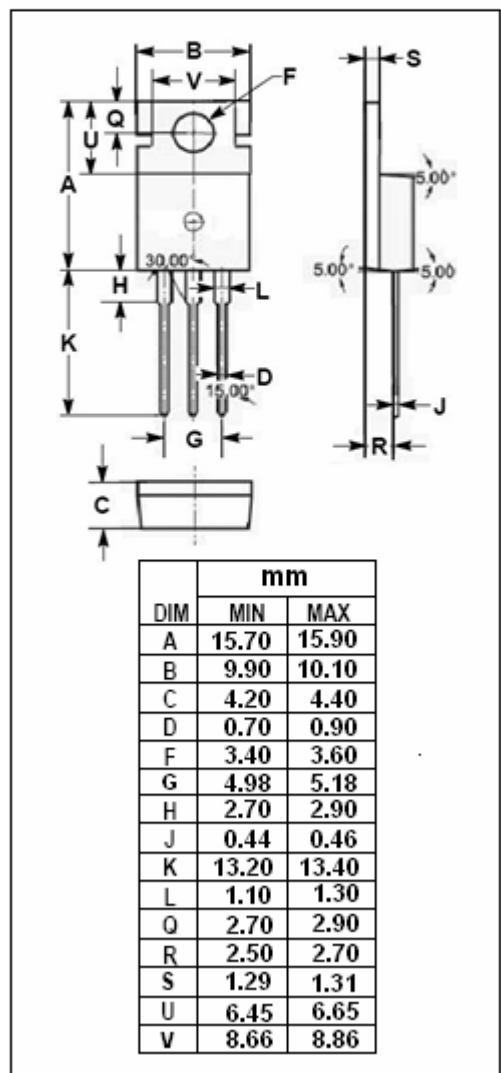
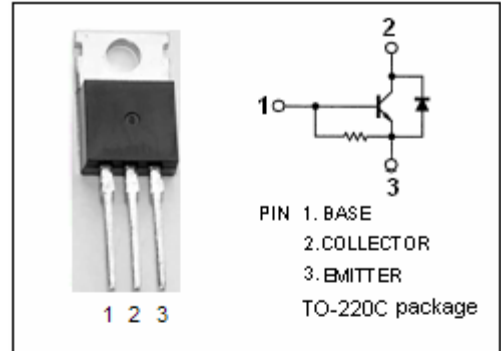
- Designed for use in horizontal deflection output stages of TV's and CRT's

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	400	V
$V_{CEV}$	Collector-Emitter Voltage	400	V
$V_{CEO}$	Collector-Emitter Voltage	200	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current-Continuous	7	A
$I_{CM}$	Collector Current-Peak	10	A
$I_B$	Base Current	4	A
$P_C$	Collector Power Dissipation @ $T_C = 25^\circ C$	60	W
$T_J$	Junction Temperature	150	$^\circ C$
$T_{stg}$	Storage Temperature Range	-65~150	$^\circ C$

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	2.08	$^\circ C/W$



**isc Silicon NPN Power Transistor****BU408D****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	$I_C= 100\text{mA}; I_B= 0$	200			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 6\text{A}; I_B= 1.2\text{A}$			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 6\text{A}; I_B= 1.2\text{A}$			1.5	V
$h_{FE}$	DC Current Gain	$I_C= 2\text{A}; V_{CE}= 5\text{V};$		15		
$I_{CEV}$	Collector Cutoff Current	$V_{CE}= 400\text{V}; V_{BE}= -1.5\text{V}$			15	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}= 6\text{V}; I_C= 0$			400	mA
$f_T$	Current-Gain—Bandwidth Product	$I_C= 0.5\text{A}; V_{CE}= 10\text{V}, f_{test}= 1\text{MHz}$	10			MHz
$V_{ECF}$	C-E Diode Forward Voltage	$I_F= 5\text{A}$			1.5	V
$t_f$	Fall Time	$I_C= 6\text{A}; I_{B1}= -I_{B2}= 1.2\text{A}, V_{CC}= 40\text{V}$			0.5	$\mu\text{s}$