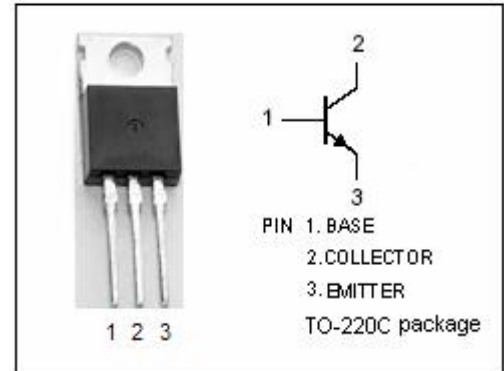


**isc Silicon NPN Power Transistor**
**Q3-2**
**DESCRIPTION**

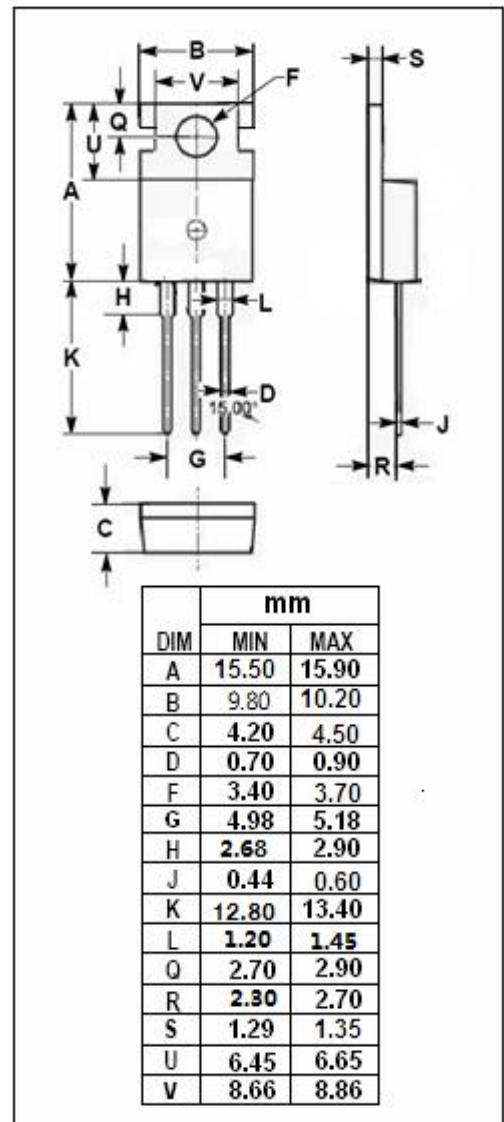
- High Voltage:  $V_{CEV} = 400V(\text{Min})$
- Low Saturation Voltage-  
:  $V_{CE(\text{sat})} = 1.0V(\text{Max}) @ I_C = 5A$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

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


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

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
$I_{CP}$	Collector Current-Peak Repetitive	10	A
$I_{CP}$	Collector Current- Peak (10ms)	15	A
$I_B$	Base Current	4	A
$P_C$	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	60	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
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	2.08	$^\circ\text{C/W}$
$R_{th\ j-a}$	Thermal Resistance, Junction to Ambient	70	$^\circ\text{C/W}$

**isc Silicon NPN Power Transistor**
**Q3-2**
**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	$I_C= 50\text{mA}; I_B= 0$	200			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C= 5\text{A}; I_B= 0.5\text{A}$			1.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C= 5\text{A}; I_B= 0.5\text{A}$			1.2	V
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}= 6\text{V}; I_C=0$			1.0	mA
$h_{FE}$	DC Current Gain	$I_C= 2\text{A}; V_{CE}= 5\text{V}$	40		120	
$f_T$	Current-Gain—Bandwidth Product	$I_C= 0.5\text{A}; V_{CE}= 10\text{V}; f_{test}= 20\text{MHz}$	10			MHz
$C_{OB}$	Output Capacitance	$I_E= 0; V_{CB}= 10\text{V}; f_{test}= 1.0\text{MHz}$		80		pF
$t_f$	Fall Time	$I_C= 5\text{A}; I_{B1}= -I_{B2}= 0.5\text{A}, L= 150 \mu\text{H}$ $V_{CC}= 40\text{V}$			0.75	$\mu\text{s}$

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