

isc Silicon NPN Power Transistor

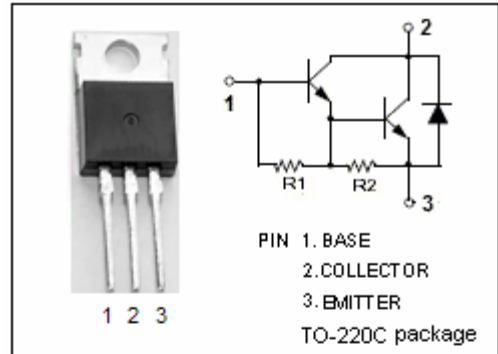
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DESCRIPTION

- Collector-Emitter Sustaining Voltage-  
:  $V_{CEO(SUS)} = 400V(\text{Min})$

APPLICATIONS

- Solenoid/ relay drivers
- Motor control
- Electronic automotive ignition

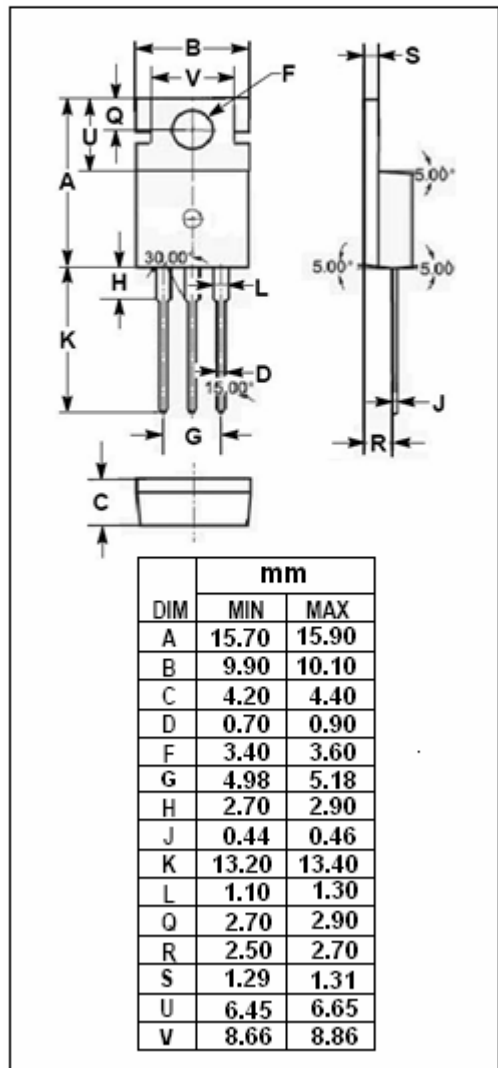


ABSOLUTE MAXIMUM RATINGS ( $T_a=25^\circ\text{C}$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CES}$	Collector-Emitter Voltage $V_{BE} = 0$	450	V
$V_{CEO}$	Collector-Emitter Voltage	400	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current	6	A
$I_{CM}$	Collector Current-peak	10	A
$I_B$	Base Current	1	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	$^\circ\text{C}/\text{W}$



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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	$I_C= 0.1\text{A}; I_B= 0$	400			V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C= 2.5\text{A}; I_B= 50\text{mA}$			1.8	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C= 4\text{A}; I_B= 200\text{mA}$			1.8	V
$V_{BE(sat)-1}$	Base-Emitter Saturation Voltage	$I_C= 2.5\text{A}; I_B= 50\text{mA}$			2.2	V
$V_{BE(sat)-2}$	Base-Emitter Saturation Voltage	$I_C= 4\text{A}; I_B= 200\text{mA}$			2.5	V
$I_{CES}$	Collector Cutoff Current	$V_{CE}= 450\text{V}; V_{BE}= 0$ $V_{CE}= 450\text{V}; V_{BE}= 0; T_j= 125^{\circ}\text{C}$			1.0 5.0	mA
$I_{CEO}$	Collector Cutoff Current	$V_{CE}= 400\text{V}; I_B= 0$			1.0	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}= 5\text{V}; I_C= 0$			5.0	mA
$V_{ECF}$	C-E Diode Forward Voltage	$I_F= 4\text{A}$			2.5	V