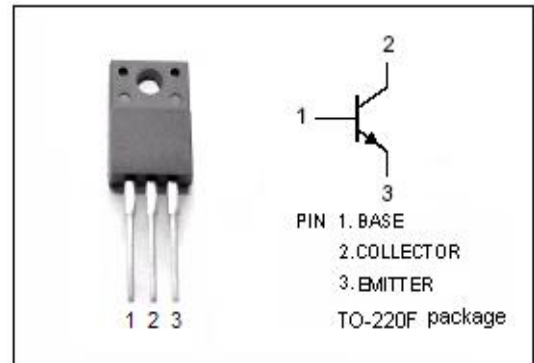


isc Silicon NPN Power Transistors
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DESCRIPTION

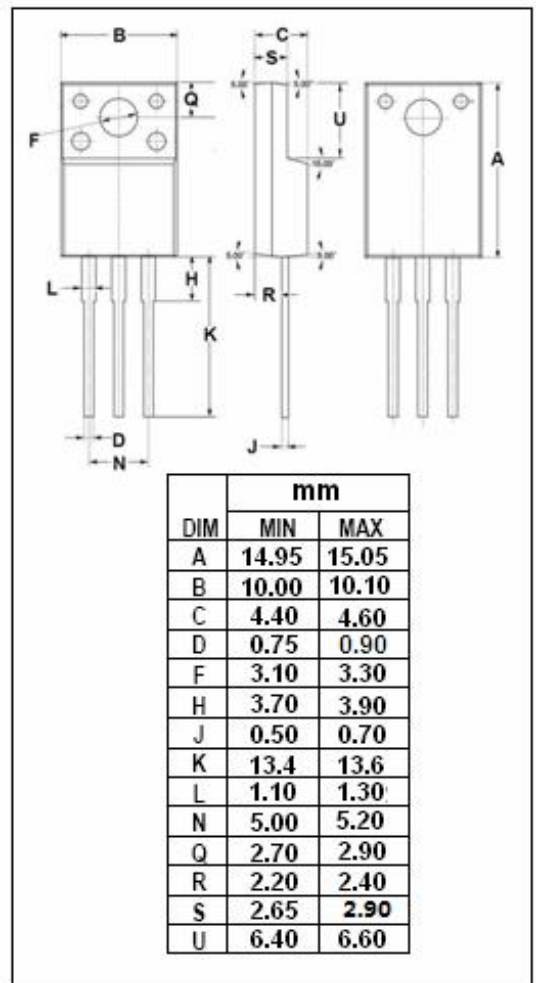
- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = 0.36V(\text{Max.})@I_C = 6A$
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 50V(\text{Min})$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

- Relay drivers, lamp drivers, motor drivers


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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	60	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current-Continuous	10	A
I_{CM}	Collector Current-Pulse	13	A
I_B	Base Current	2	A
P_C	Collector Power Dissipation $T_c=25^\circ\text{C}$	25	W
T_j	Max.Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Ttemperature Range	-55~150	$^\circ\text{C}$


THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	5	$^\circ\text{C/W}$

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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=1\text{mA}; I_B=0$	50		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=6\text{A}; I_B=300\text{mA}$		0.36	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=6\text{A}; I_B=300\text{mA}$		1.2	V
I_{CBO}	Collector Cutoff Current	$V_{CE}=40\text{V}; V_{EB}=0$		10	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$		10	μA
h_{FE}	DC Current Gain	$I_C=0.27\text{A}; V_{CE}=2\text{V}$	200	560	

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