

isc Silicon NPN Power Transistors
2SC5706
DESCRIPTION

- Collector-Emitter Saturation Voltage-
: $V_{CE(sat)} = 0.135V(\text{Max.})@I_C = 1A$
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = 50V(\text{Min})$
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

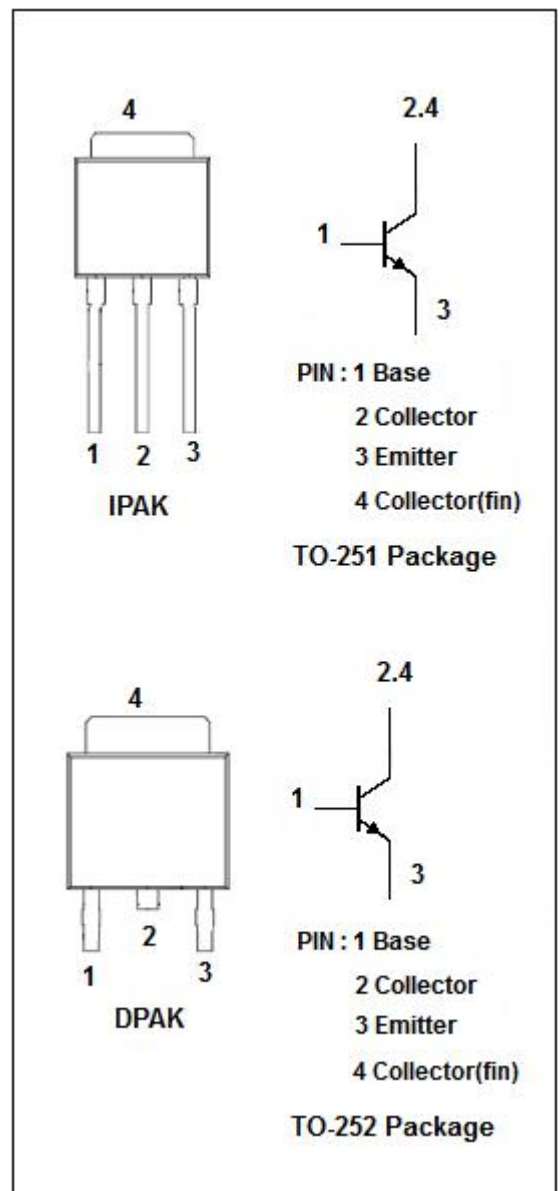
- Relay drivers, lamp drivers, motor drivers

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	50	V
V_{EBO}	Emitter-Base Voltage	6	V
I_C	Collector Current-Continuous	5	A
I_{CM}	Collector Current-Pulse	7.5	A
P_C	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	15	W
T_j	Max.Junction Temperature	150	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^\circ\text{C}$

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	8.33	$^\circ\text{C}/\text{W}$



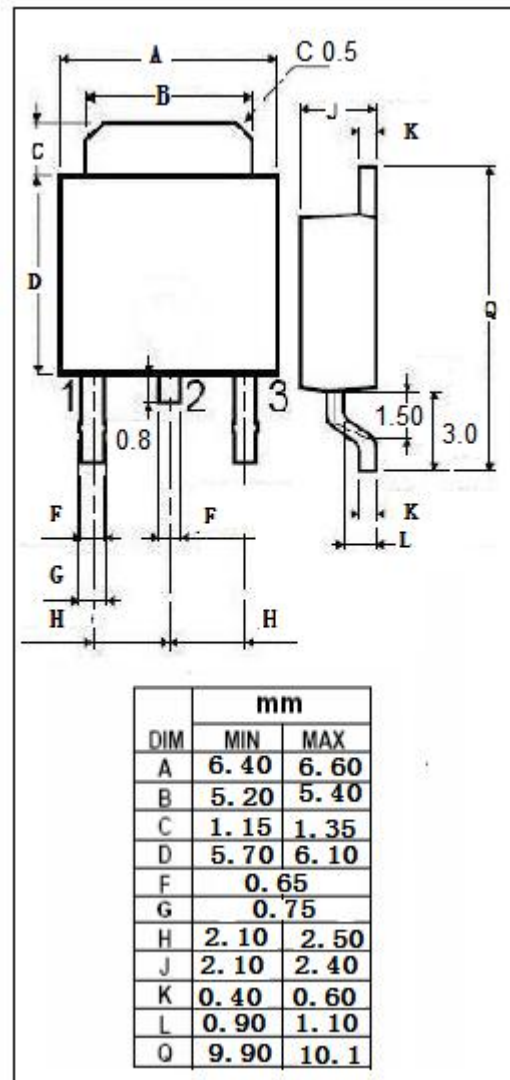
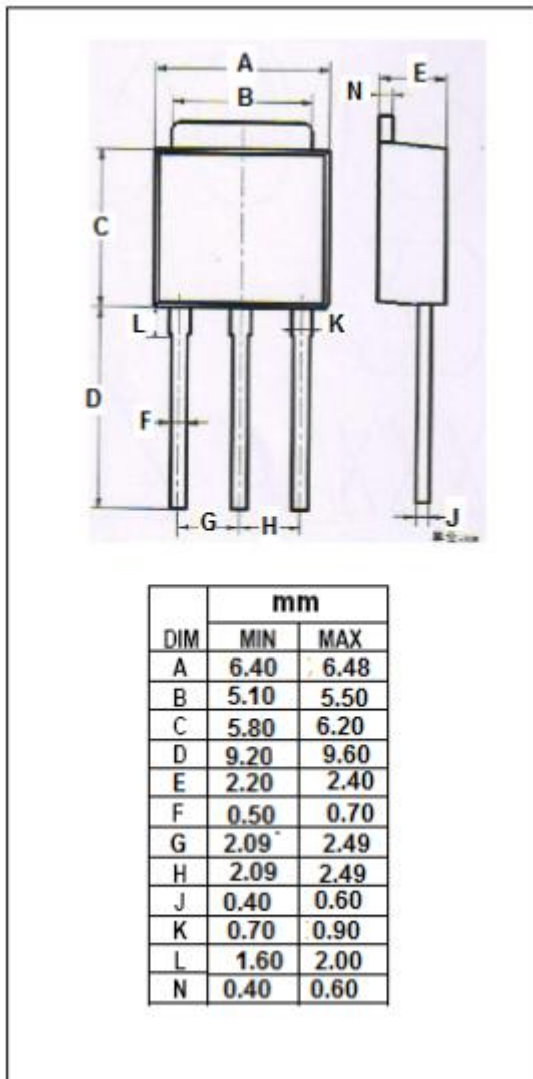
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ELECTRICAL CHARACTERISTICS

 $T_c=25^\circ\text{C}$ 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	$I_C=1\text{A}; I_B=50\text{mA}$ $I_C=2.0\text{A}; I_B=100\text{mA}$		0.135 0.24	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=2\text{A}; I_B=100\text{mA}$		1.2	V
I_{CBO}	Collector Cutoff Current	$V_{CE}=40\text{V}; V_{EB}=0$		1	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB}=4\text{V}; I_C=0$		1	μA
h_{FE1}	DC Current Gain	$I_C=0.5\text{A}; V_{CE}=2\text{V}$	200	560	

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OUTLINE DRAWIN


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