

isc Silicon NPN Power Transistor
2SC5706
DESCRIPTION

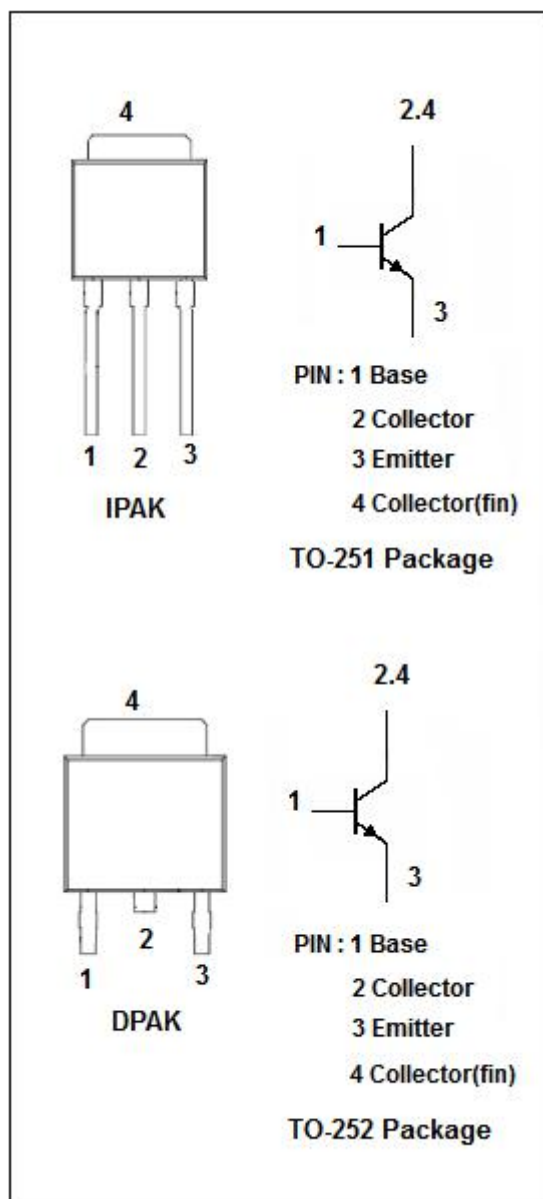
- Large current capacitance
- High-speed switching
- 100% avalanche tested
- High allowable power dissipation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation
- Complementary to 2SA2039

APPLICATIONS

- DC/DC converter, relay drivers, lamp drivers, motor drivers

ABSOLUTE MAXIMUM RATINGS(T_a=25°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-Peak	7.5	A
P _C	Collector Power Dissipation @ T _C =25°C	15	W
	Collector Power Dissipation @ T _a =25°C	0.8	
T _J	Junction Temperature	150	°C
T _{stg}	Storage Temperature Range	-55~150	°C



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ELECTRICAL CHARACTERISTICS

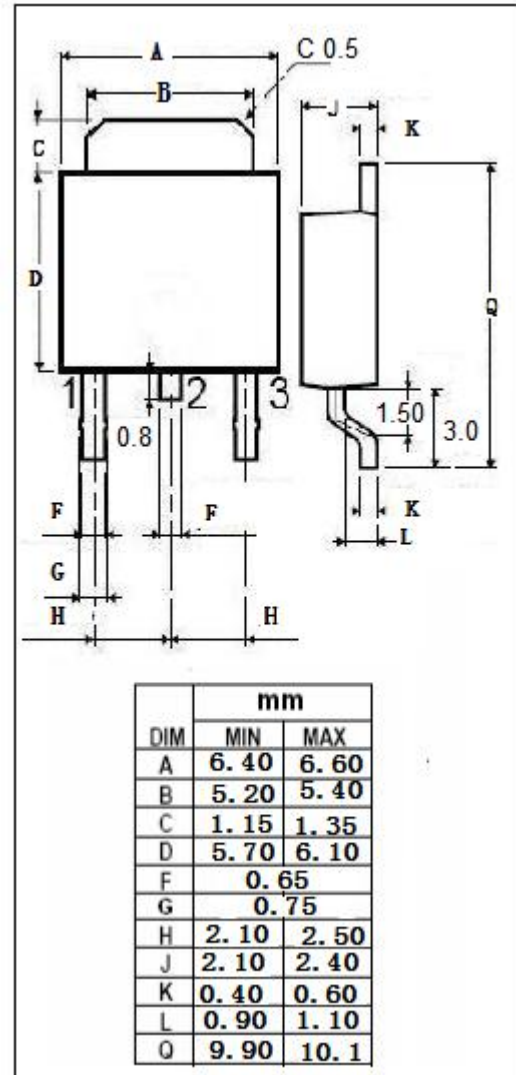
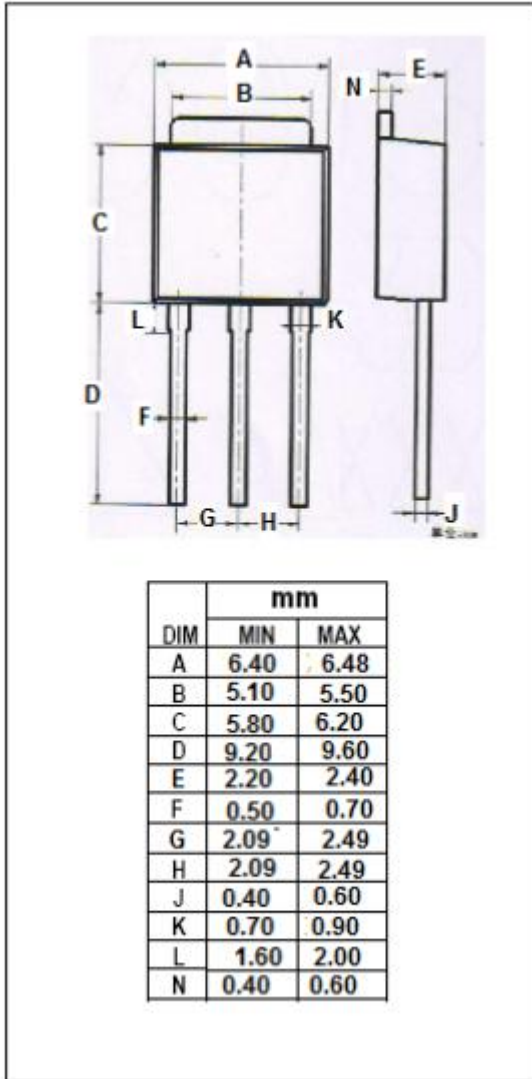
T_c=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{CE(sat)-1}	Collector-Emitter Saturation Voltage	I _C = 1.0A; I _B = 50mA			0.135	V
V _{CE(sat)-2}	Collector-Emitter Saturation Voltage	I _C = 2.0A; I _B = 100mA			0.24	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = 2.0A; I _B = 100mA			1.2	V
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = 1mA; I _B = 0	50			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = 10uA; I _C = 0	6			V
I _{CBO}	Collector Cutoff Current	V _{CB} = 40V; I _E = 0			1.0	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = 4V; I _C = 0			1.0	μ A
h _{FE}	DC Current Gain	I _C = 0.5A; V _{CE} =2V	200		560	
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = 10V; f= 1.0MHz		15		pF
f _T	Current-Gain—Bandwidth Product	I _C = 500mA; V _{CE} = 10V		400		MHz

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Outline Drawing



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