

isc Silicon PNP Power Transistor
2SA2039
DESCRIPTION

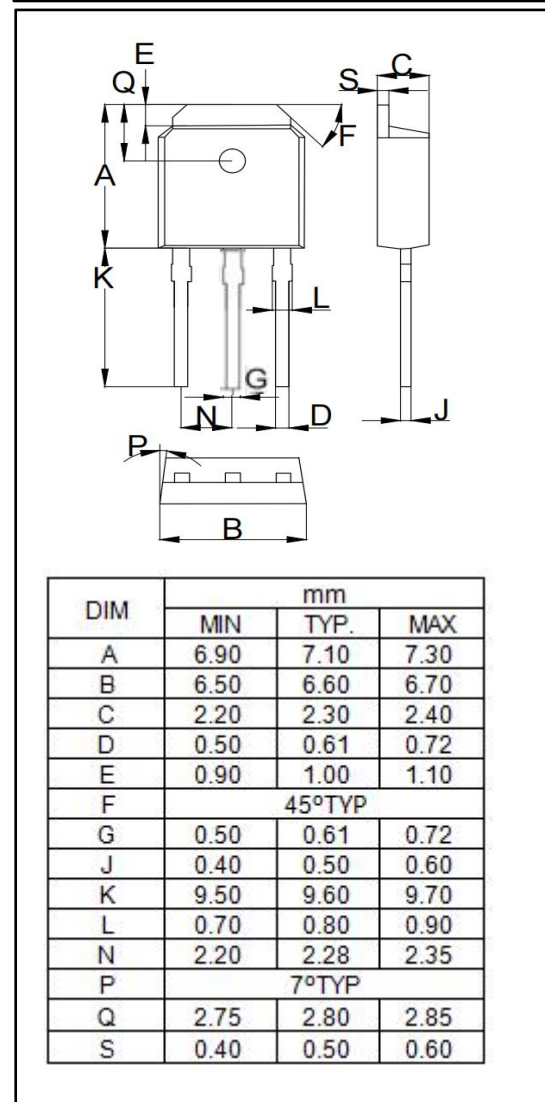
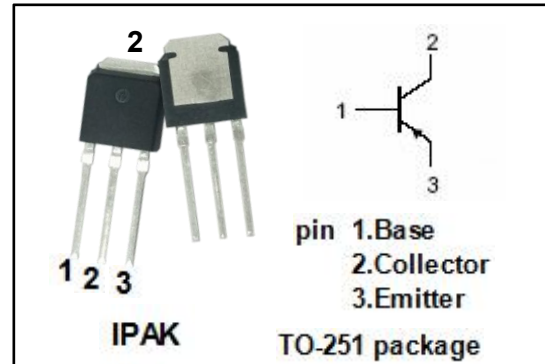
- Large current capacitance
- High-speed switching
- 100% avalanche tested
- High allowable power dissipation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation
- Complementary to 2SC5706
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

APPLICATIONS

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

ABSOLUTE MAXIMUM RATINGS (T_a=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V _{CBO}	Collector-Base Voltage	-50	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
 $T_c=25^\circ\text{C}$ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C = -1.0\text{A}; I_B = -50\text{mA}$			-0.195	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C = -2.0\text{A}; I_B = -100\text{mA}$			-0.43	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -2.0\text{A}; I_B = -100\text{mA}$			-1.2	V
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C = -1\text{mA}; I_B = 0$	-50			V
$V_{(BR)EBO}$	Emitter-Base Breakdown Voltage	$I_E = -10\mu\text{A}; I_C = 0$	-6			V
I_{CBO}	Collector Cutoff Current	$V_{CB} = -40\text{V}; I_E = 0$			-1.0	μA
I_{EBO}	Emitter Cutoff Current	$V_{EB} = -4\text{V}; I_C = 0$			-1.0	μA
h_{FE}	DC Current Gain	$I_C = -0.5\text{A}; V_{CE} = -2\text{V}$	200		560	
C_{OB}	Output Capacitance	$I_E = 0; V_{CB} = -10\text{V}; f = 1.0\text{MHz}$		24		pF
f_T	Current-Gain—Bandwidth Product	$I_C = -500\text{mA}; V_{CE} = -10\text{V}$		360		MHz

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