

isc Silicon PNP Power Transistor

2SA2039

DESCRIPTION

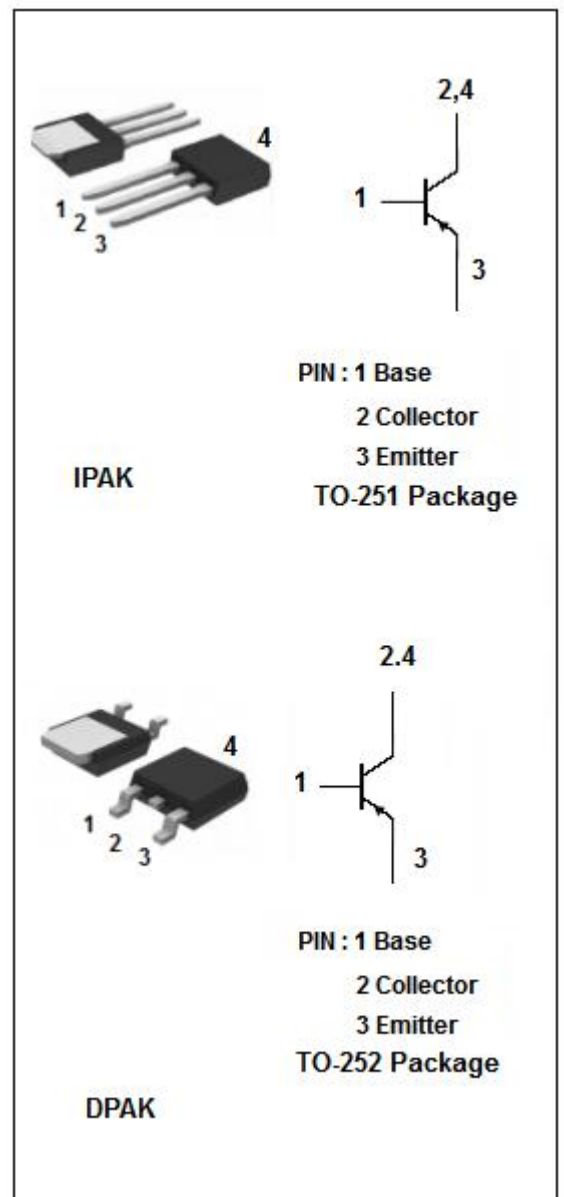
- Large current capacitance
- High-speed switching
- 100% avalanche tested
- High allowable power dissipation
- Minimum Lot-to-Lot variations for robust device performance and reliable operation
- Complementary to 2SC5706

APPLICATIONS

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

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

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 @ $T_C=25^{\circ}\text{C}$	15	W
	Collector Power Dissipation @ $T_a=25^{\circ}\text{C}$	0.8	
T_J	Junction Temperature	150	$^{\circ}\text{C}$
T_{stg}	Storage Temperature Range	-55~150	$^{\circ}\text{C}$



isc Silicon PNP Power Transistor**2SA2039****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			-0.195	V
V _{CE(sat)} -2	Collector-Emitter Saturation Voltage	I _C = -2.0A; I _B = -100mA			-0.43	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 = -10μA; 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		24		pF
f _T	Current-Gain—Bandwidth Product	I _C = -500mA; V _{CE} = -10V		360		MHz

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Outline Drawing

