

**isc Silicon PNP Power Transistor**
**2SA2097**
**DESCRIPTION**

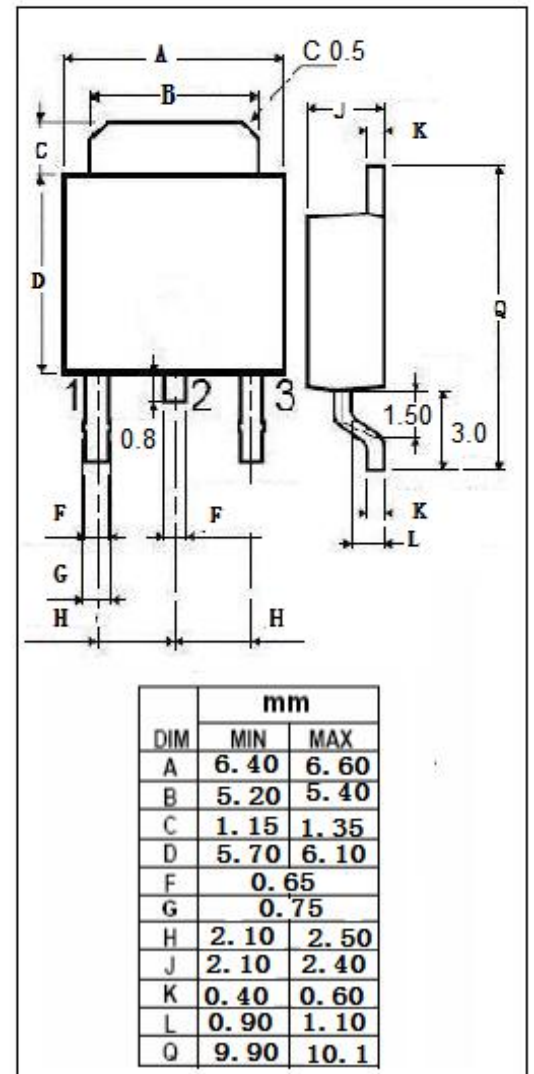
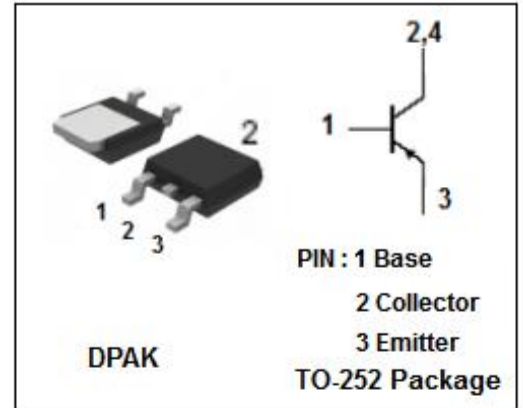
- With TO-252(DPAK) packaging
- Excellent linearity of  $h_{FE}$
- Low collector-to-emitter saturation voltage
- Fast switching speed
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Relay drivers, high-speed inverters , converters
- Other general high current switching applications

**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	-7	V
$I_C$	Collector Current-Continuous	-5	A
$I_{CP}$	Collector Current-Continuous	-10	A
$I_B$	Base Current	-0.5	A
$P_C$	Collector Power Dissipation	20	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



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**ELECTRICAL CHARACTERISTICS**

 T<sub>c</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
BV <sub>CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> =-1mA; I <sub>B</sub> =0	-50			V
BV <sub>CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> =-10mA; I <sub>B</sub> =0	-50			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> =-1.6A; I <sub>B</sub> = -53mA			-0.27	mV
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> =-1.6A; I <sub>B</sub> = -53mA			-1.10	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -50V; I <sub>E</sub> = 0			-100	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -7V; I <sub>C</sub> =0			-100	μ A
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = -0.5A ; V <sub>CE</sub> = -2V	200		500	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = -2A ; V <sub>CE</sub> = -1.6V	100			

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