

**isc Silicon NPN Power Transistor**
**2SC3074**
**DESCRIPTION**

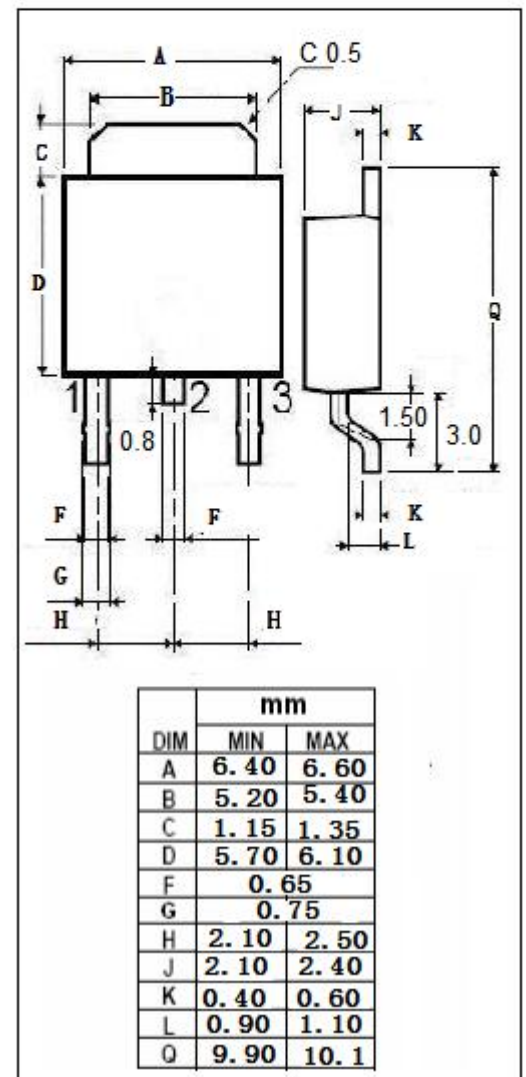
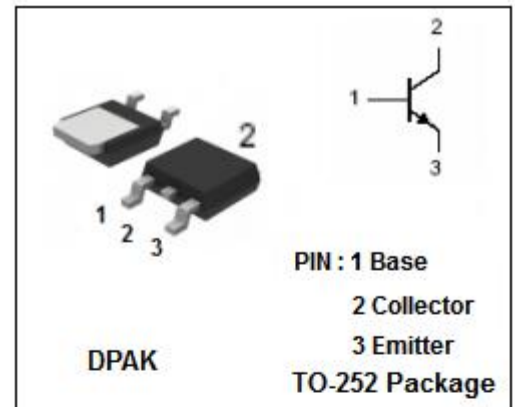
- With TO-252(DPAK) packaging
- Excellent linearity of  $h_{FE}$
- Low collector-to-emitter saturation voltage
- Fast switching speed
- Complementary to 2SA1244
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

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

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	60	V
$V_{CEO}$	Collector-Emitter Voltage	50	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	5	A
$I_B$	Base Current-Continuous	1	A
$P_C$	Collector Power Dissipation	1	W
	Collector Power Dissipation @ $T_c=25^{\circ}\text{C}$	20	
$T_J$	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>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> =3A; I <sub>B</sub> =0.15A		200	400	mV
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>c</sub> =3A; I <sub>B</sub> =0.15A		0.9	1.2	V
I <sub>CB0</sub>	Collector Cutoff Current	V <sub>CB</sub> = 40V; I <sub>E</sub> = 0			1.0	μ A
I <sub>EB0</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 5V; I <sub>C</sub> =0			1.0	μ A
h <sub>FE-1</sub>	DC Current Gain	I <sub>c</sub> = 1A ; V <sub>CE</sub> = 1V	70		240	
h <sub>FE-2</sub>	DC Current Gain	I <sub>c</sub> = 3A ; V <sub>CE</sub> = 1V	30			

◆ h<sub>FE-1</sub> Classifications

O	Y
70-140	120-240

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