

isc Silicon NPN Power Transistor

2SC6098

**DESCRIPTION**

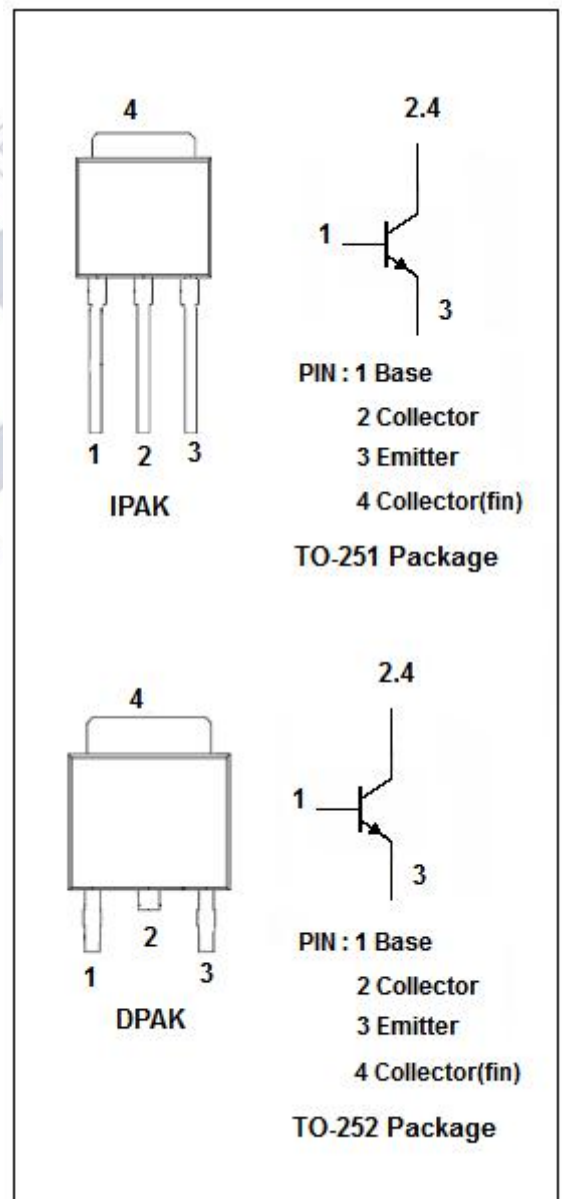
- Large current capacitance
- High-speed switching
- High allowable power dissipation
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

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

**ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	120	V
V <sub>CEO</sub>	Collector-Emitter Voltage	80	V
V <sub>EBO</sub>	Emitter-Base Voltage	6.5	V
I <sub>C</sub>	Collector Current-Continuous	2.5	A
I <sub>CM</sub>	Collector Current-Peak	4	A
P <sub>C</sub>	Collector Power Dissipation @ T <sub>C</sub> =25°C	15	W
	Collector Power Dissipation @ T <sub>a</sub> =25°C	0.8	
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C



**isc Silicon NPN Power Transistor****2SC6098****ELECTRICAL CHARACTERISTICS****T<sub>c</sub>=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>CE(sat)-1</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 1A; I <sub>B</sub> = 50mA			0.165	V
V <sub>CE(sat)-2</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 1A; I <sub>B</sub> = 100mA			0.15	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 1A; I <sub>B</sub> = 100mA			1.2	V
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 1mA; I <sub>B</sub> = 0	80			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = 10uA; I <sub>C</sub> = 0	6.5			V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 70V; I <sub>E</sub> = 0			1	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 4V; I <sub>C</sub> = 0			1	μ A
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = 0.1A; V <sub>CE</sub> = 5V	300		600	
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> = 0; V <sub>CB</sub> = 10V; f= 1.0MHz		14		pF
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = 0.5A; V <sub>CE</sub> = 10V		350		MHz

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Outline Drawing

