

**isc Silicon NPN Power Transistor**

**2SD723**

**DESCRIPTION**

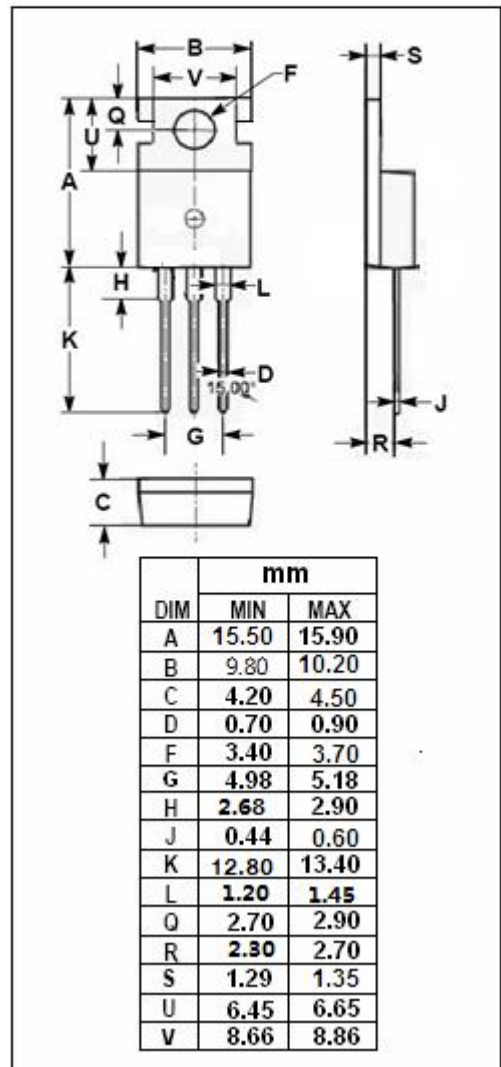
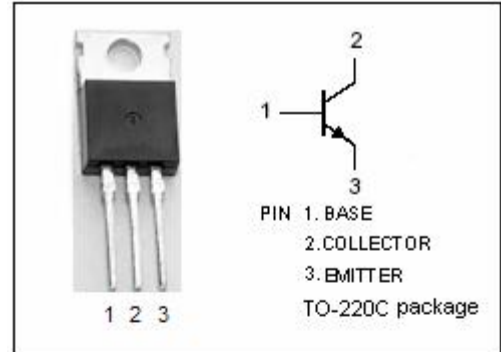
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 100V(\text{Min})$
- DC Current Gain  $-h_{FE} = 50(\text{Min}) @ I_C = 0.5A$
- Fast Switching Speed
- 100% avalanche tested
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

- Designed for use in general purpose amplifier and switching applications.

**Absolute maximum ratings(Ta=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	100	V
$V_{CEO}$	Collector-Emitter Voltage	100	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	4	A
$I_{CM}$	Collector Current-Pulse	6	A
$I_B$	Base Current	1	A
$P_C$	Collector Power Dissipation $T_C=25^\circ\text{C}$	40	W
$T_j$	Junction Temperature	150	°C
$T_{stg}$	Storage Temperature Range	-65~150	°C



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## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 30mA; I <sub>B</sub> = 0	100		V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 4A; I <sub>B</sub> = 0.5A		1.2	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = 4A; V <sub>CE</sub> = 4V		1.8	V
I <sub>CES</sub>	Collector Cutoff Current	V <sub>CE</sub> = 100V; V <sub>EB</sub> = 0		0.1	mA
I <sub>CEO</sub>	Collector Cutoff Current	V <sub>CE</sub> = 100V; I <sub>B</sub> = 0		0.1	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 5V; I <sub>C</sub> = 0		0.1	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 0.5A ; V <sub>CE</sub> = 4V	50	250	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 4A ; V <sub>CE</sub> = 4V	10		
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = 0.5A ; V <sub>CE</sub> = 10V	3		MHz

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