

**isc Silicon NPN Power Transistor**
**3DD5E**
**DESCRIPTION**

- Excellent safe operating area
- Low Collector-Emitter Saturation Voltage
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

**APPLICATIONS**

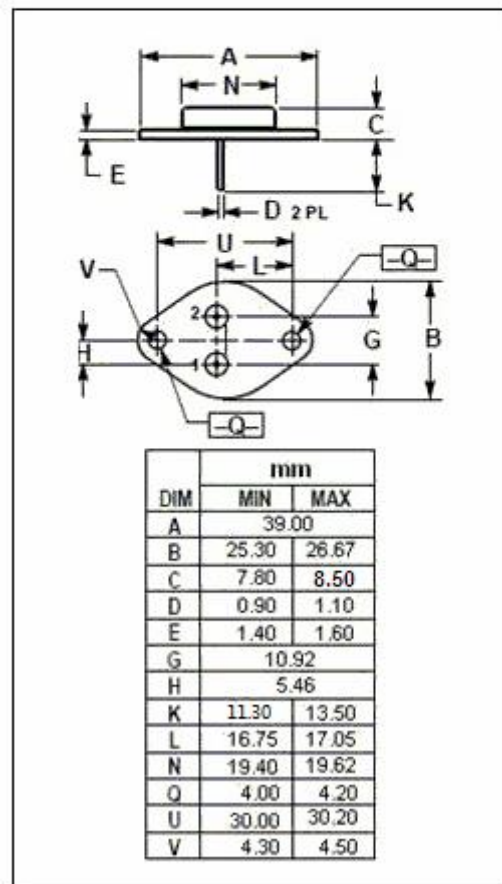
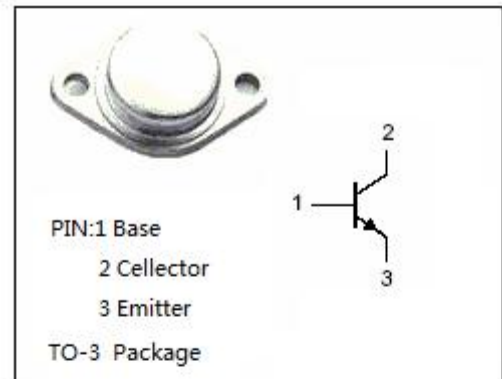
- Designed for general purpose switching and amplifier applications

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

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	350	V
V <sub>CEO</sub>	Collector-Emitter Voltage	250	V
V <sub>EBO</sub>	Emitter-Base Voltage	5	V
I <sub>C</sub>	Collector Current-Continuous	3	A
P <sub>C</sub>	Collector Power Dissipation @ T <sub>C</sub> =75°C	30	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~175	°C

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>th j-c</sub>	Thermal Resistance, Junction to Case	1.52	°C/W



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## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 3mA; I <sub>B</sub> = 0	250			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> = 1mA; I <sub>C</sub> = 0	5			V
V <sub>(BR)CBO</sub>	Collector-Base Breakdown Voltage	I <sub>C</sub> = 3mA; I <sub>E</sub> = 0	350			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 1.5A; I <sub>B</sub> = 0.15A			1	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 1.5A; I <sub>B</sub> = 0.15A			1	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = 350V; I <sub>E</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> = 1.5A; V <sub>CE</sub> = 10V	15		180	

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