



# isc Silicon NPN Power Transistor

#### **DESCRIPTION**

- · Collector-Emitter Breakdown Voltage-
  - : V<sub>(BR)CEO</sub>= 80V (Min)
- Wide Area of Safe Operation
- High Current Capability
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

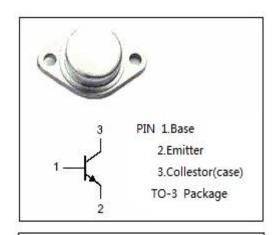
## **APPLICATIONS**

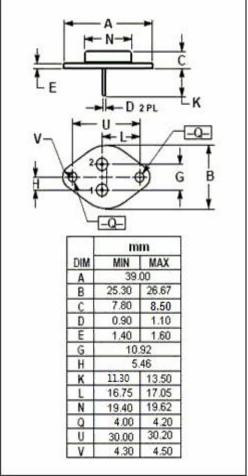


• Designed for AF high power amplifier applications.

ABSOLUTE MAXIMUM RATINGS(Ta=25℃)

SYMBOL	PARAMETER	MAX	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	110	V
V <sub>CEO</sub>	Collector-Emitter Voltage	80	V
$V_{EBO}$	Emitter-Base Voltage	7	V
lc	Collector Current-Continuous	15	Α
I <sub>CM</sub>	Collector Current-Peak	30	А
Pc	Collector Power Dissipation @Tc=25℃	100	W
T <sub>j</sub>	T <sub>j</sub> Junction Temperature		$^{\circ}$ C
T <sub>stg</sub>	T <sub>stg</sub> Storage Temperature Range		$^{\circ}$ C







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2SD750

### **ELECTRICAL CHARACTERISTICS**

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)</sub> CEO	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 10mA; I <sub>B</sub> = 0	80			V
V <sub>(BR)EBO</sub>	Emitter-Base Breakdown Voltage	I <sub>E</sub> =1mA; I <sub>C</sub> = 0	7			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 5A; I <sub>B</sub> = 0.5A			2.0	V
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>C</sub> = 5A; V <sub>CE</sub> = 4V			1.5	V
Ісво	Collector Cutoff Current	V <sub>CB</sub> = 40V; I <sub>E</sub> = 0			30	μА
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 1A; V <sub>CE</sub> = 4V	40			
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 5A; V <sub>CE</sub> = 4V	30		120	
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = 0.5A; V <sub>CE</sub> = 10V		1		MHz

## h<sub>FE-2</sub> Classifications

Q	Р	0
30-60	40-80	60-120

### **NOTICE:**

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