

# isc Silicon PNP Power Transistor

## 2SA1117

#### DESCRIPTION

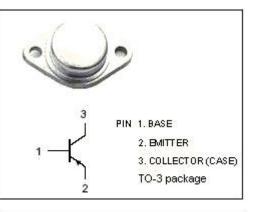
- Collector-Emitter Breakdown Voltage-
- : V<sub>(BR)CEO</sub>= -200V(Min.)
- High Power Dissipation
- Complement to Type 2SC2608
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

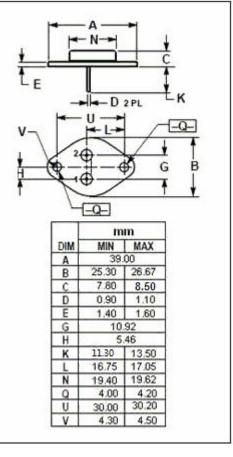
#### **APPLICATIONS**

• Designed for general purpose applications.

## ABSOLUTE MAXIMUM RATINGS(Ta=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>сво</sub>	Collector-Base Voltage	-200	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-200	V
V <sub>EBO</sub>	Emitter-Base Voltage	-6	V
lc	Collector Current-Continuous	-17	А
IB	Base Current-Continuous	-5	А
Pc	Collector Power Dissipation @T <sub>c</sub> =25°C	200	W
Tj	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature	-65~150	°C





isc website: www.iscsemi.com

<sup>1</sup> *isc & iscsemi* is registered trademark



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### **ELECTRICAL CHARACTERISTICS**

#### Tj=25℃ unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -50mA; I <sub>B</sub> = 0	-200			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -10A; I <sub>B</sub> = -1A			-3.0	V
Ісво	Collector Cutoff Current	V <sub>CB</sub> = -200V; I <sub>E</sub> = 0			-100	μ Α
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -6V; I <sub>C</sub> = 0			-100	μ Α
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = -8A ; V <sub>CE</sub> = -4V	20			
f⊤	Current-Gain—Bandwidth Product	I <sub>E</sub> = 0.5A; V <sub>CE</sub> = -12V		20		MHz

Switching Times

tr	Rise Time		0.6	μ <b>S</b>
t <sub>stg</sub>	Storage Time	I <sub>C</sub> = -5A, R <sub>L</sub> = 12 Ω , I <sub>B1</sub> = -I <sub>B2</sub> = -0.5A, V <sub>CC</sub> = -60V	0.9	μs
t <sub>f</sub>	Fall Time		0.2	μ <b>S</b>

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