

isc Silicon PNP Power Transistor

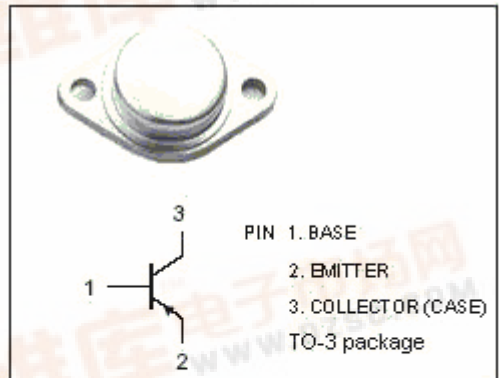
2SA1116

DESCRIPTION

- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -200V(\text{Min.})$
- High Power Dissipation
- Complement to Type 2SC2607

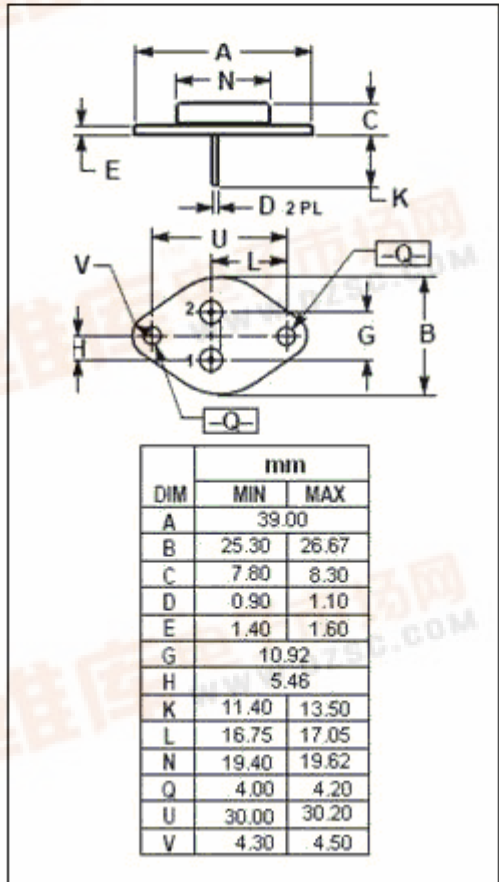
APPLICATIONS

- Designed for general purpose applications.



ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ\text{C}$ )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-200	V
$V_{CEO}$	Collector-Emitter Voltage	-200	V
$V_{EBO}$	Emitter-Base Voltage	-6	V
$I_C$	Collector Current-Continuous	-15	A
$I_B$	Base Current-Continuous	-5	A
$P_C$	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	150	W
$T_j$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-65~150	$^\circ\text{C}$



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## ELECTRICAL CHARACTERISTICS

T<sub>j</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> = -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
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -200V; I <sub>E</sub> = 0			-100	μ A
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -6V; I <sub>C</sub> = 0			-100	μ A
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = -5A ; V <sub>CE</sub> = -4V	30			
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>E</sub> = 0.5A; V <sub>CE</sub> = -12V		20		MHz

## Switching Times

t <sub>r</sub>	Rise Time	I <sub>C</sub> = -5A, R <sub>L</sub> = 12Ω, I <sub>B1</sub> = -I <sub>B2</sub> = -0.5A, V <sub>CC</sub> = -60V		0.3		μ s
t <sub>stg</sub>	Storage Time			0.9		μ s
t <sub>f</sub>	Fall Time			0.2		μ s