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## Silicon NPN Power Transistor

## 2SC2244

### DESCRIPTION

- High Collector-Emitter Sustaining Voltage-  
:  $V_{CEO(SUS)} = 400V$  (Min)
- High Switching Speed

### APPLICATIONS

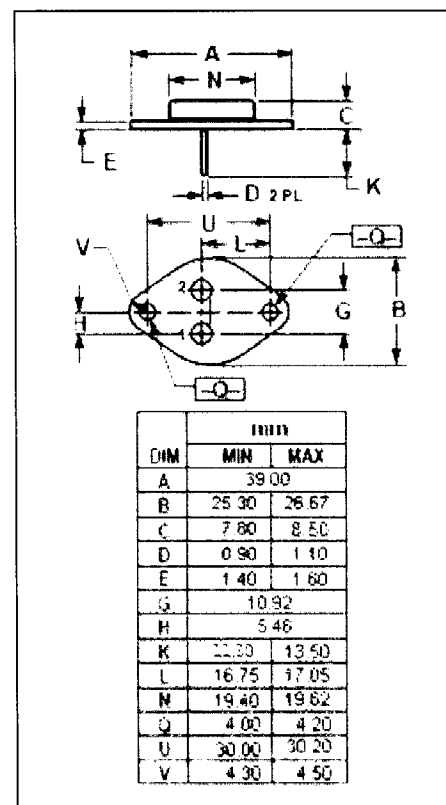
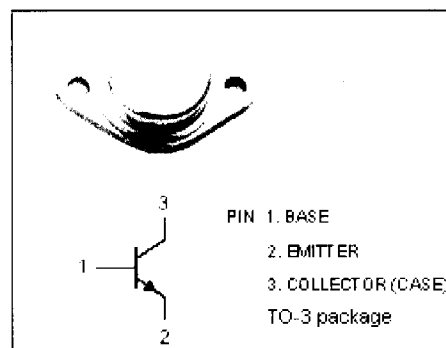
- Power switching
- Power amplification
- Power driver

### ABSOLUTE MAXIMUM RATINGS( $T_a=25^\circ C$ )

SYMBOL	PARAMETER	MAX	UNIT
$V_{CBO}$	Collector-Base Voltage	450	V
$V_{CEO}$	Collector-Emitter Voltage	400	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	8	A
$I_{CM}$	Collector Current-Peak	16	A
$I_B$	Base Current-Continuous	3	A
$P_C$	Collector Power Dissipation @ $T_C=25^\circ C$	100	W
$T_J$	Junction Temperature	200	$^\circ C$
$T_{stg}$	Storage Temperature Range	-65~200	$^\circ C$

### THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th-j-c}$	Thermal Resistance, Junction to Case	1.0	$^\circ C/W$



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**Quality Semi-Conductors**

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## ELECTRICAL CHARACTERISTICS

 $T_C=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CEO(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=50\text{mA}$ ; $L=25\text{mH}$	400			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=3\text{A}$ ; $I_B=0.6\text{A}$			1.2	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=3\text{A}$ ; $I_B=0.6\text{A}$			1.5	V
$h_{FE}$	DC Current Gain	$I_C=3\text{A}$ ; $V_{CE}=5\text{V}$	10			
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=450\text{V}$ ; $I_E=0$ $T_C=125^\circ\text{C}$			1.0 4.0	mA
$I_{CEO}$	Collector Cutoff Current	$V_{CE}=400\text{V}$ ; $I_B=0$			5.0	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=5\text{V}$ ; $I_C=0$			1.0	mA

## Switching Times

$t_r$	Rise Time	$I_C=3\text{A}$ ; $I_{B1}=-I_{B2}=0.6\text{A}$			1.0	$\mu\text{s}$
$t_{stg}$	Storage Time				2.0	$\mu\text{s}$
$t_f$	Fall Time				1.0	$\mu\text{s}$