

# SPTECH Product Specification

## SPTEHC Silicon NPN Power Transistors

2SC1116

### DESCRIPTION

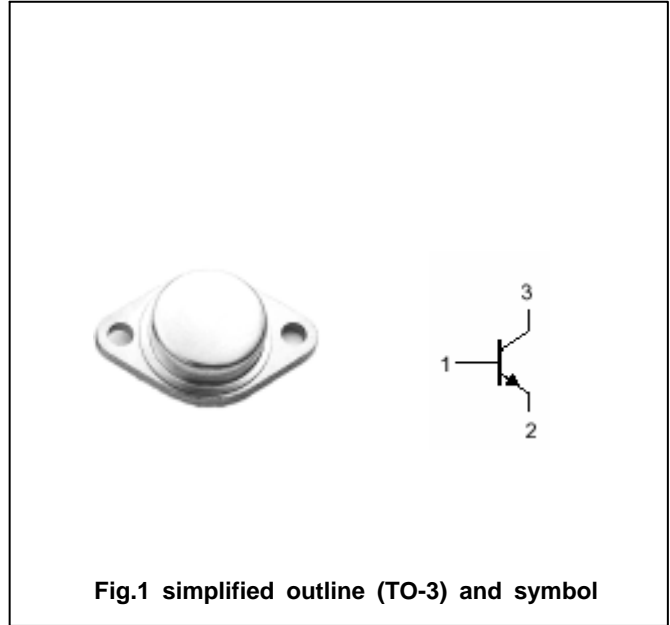
- With TO-3 package
- Wide area of safe operation

### APPLICATIONS

- For audio and general purpose applications

### PINNING(see Fig.2)

PIN	DESCRIPTION
1	Base
2	Emitter
3	Collector



### Absolute maximum ratings(Ta= )

SYMBOL	PARAMETER	CONDITIONS	VALUE	UNIT
V <sub>CBO</sub>	Collector-base voltage	Open emitter	180	V
V <sub>CEO</sub>	Collector-emitter voltage	Open base	120	V
V <sub>EBO</sub>	Emitter-base voltage	Open collector	6	V
I <sub>C</sub>	Collector current		10	A
P <sub>C</sub>	Collector power dissipation	T <sub>C</sub> =25	100	W
T <sub>j</sub>	Junction temperature		150	
T <sub>stg</sub>	Storage temperature		-55~150	

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### CHARACTERISTICS

$T_j=25$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-emitter breakdown voltage	$I_C=25mA ; I_B=0$	120			V
$V_{(BR)CBO}$	Collector-base breakdown voltage	$I_C=1mA ; I_E=0$	180			V
$V_{(BR)EBO}$	Emitter-base breakdown voltage	$I_E=1mA ; I_C=0$	6			V
$V_{CEsat}$	Collector-emitter saturation voltage	$I_C=5A ; I_B=0.5A$			2.0	V
$I_{CBO}$	Collector cut-off current	$V_{CB}=180V ; I_E=0$			0.1	mA
$I_{EBO}$	Emitter cut-off current	$V_{EB}=5V ; I_C=0$			0.1	mA
$h_{FE}$	DC current gain	$I_C=3A ; V_{CE}=4V$	50			
$f_T$	Transition frequency	$I_C=1A ; V_{CE}=12V$		10		MHz

PACKAGE OUTLINE

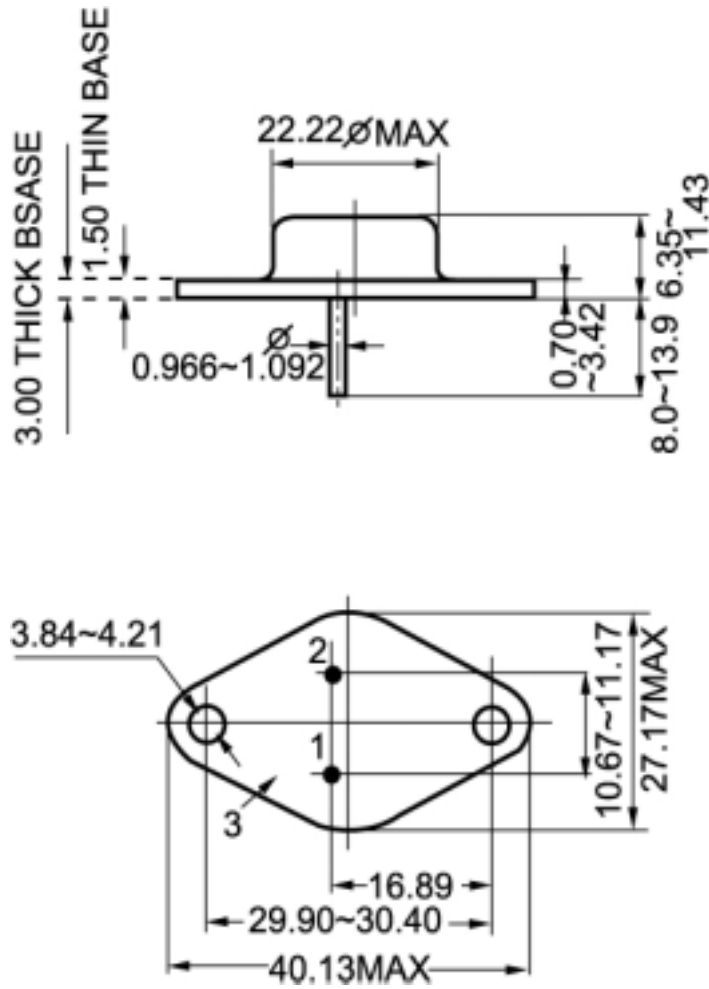


Fig.2 outline dimensions (unindicated tolerance:  $\pm 0.1$ mm)