

## Silicon NPN Power Transistor

### DESCRIPTION

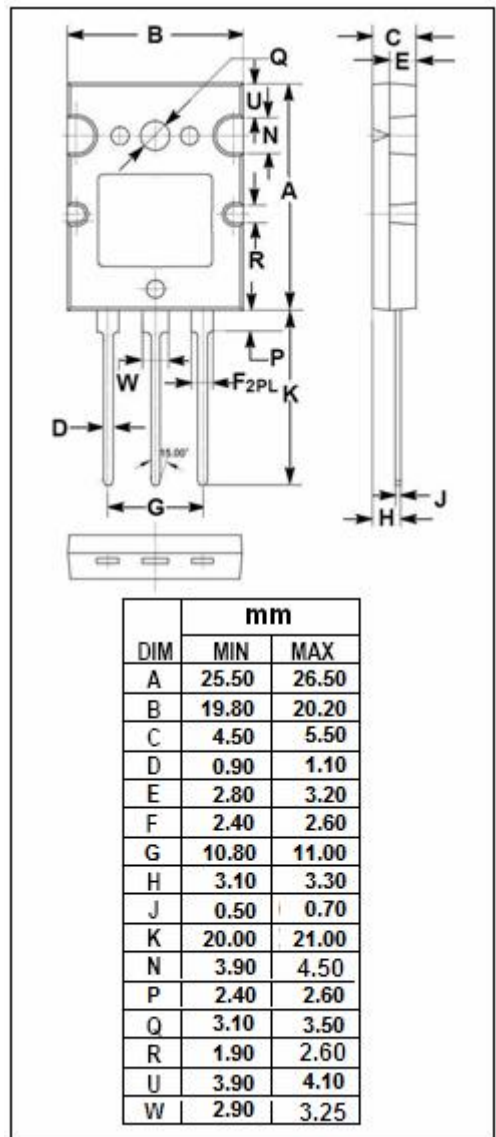
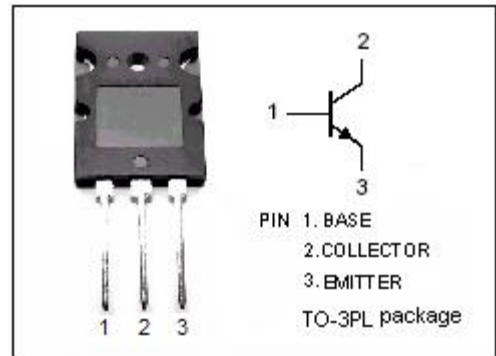
- High Switching Speed
- High Breakdown Voltage-  
:  $V_{(BR)CBO} = 1500V(\text{Min})$

### APPLICATIONS

- Designed for horizontal deflection output applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	1500	V
$V_{CEO}$	Collector-Emitter Voltage	800	V
$V_{EBO}$	Emitter-Base Voltage	6	V
$I_C$	Collector Current-Continuous	20	A
$I_{CM}$	Collector Current-Pulse	40	A
$P_C$	Collector Power Dissipation @ $T_C=25^\circ\text{C}$	250	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



### Ordering Information

Product	Package	Packaging
2SC3997T7TL	TO-3PL	Tube



## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C=10\text{mA}; I_B=0$	800			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=16\text{A}; I_B=4\text{A}$			5.0	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=16\text{A}; I_B=4\text{A}$			1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=800\text{V}; I_E=0$			10	$\mu\text{A}$
$I_{CES}$	Collector Cutoff Current	$V_{CE}=1500\text{V}; R_{BE}=0$			1.0	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=4\text{V}; I_C=0$			1.0	mA
$h_{FE-1}$	DC Current Gain	$I_C=1\text{A}; V_{CE}=5\text{V}$	8			
$h_{FE-2}$	DC Current Gain	$I_C=16\text{A}; V_{CE}=5\text{V}$	4		8	
$t_{stg}$	Storage Time	$I_C=12\text{A}, I_{B1}=2.4\text{A}; I_{B2}=-4.8\text{A}$			3.0	$\mu\text{s}$
$t_f$	Fall Time				0.2	$\mu\text{s}$