

**SPTECH Silicon NPN Power Transistor**

**2SC2336**

**DESCRIPTION**

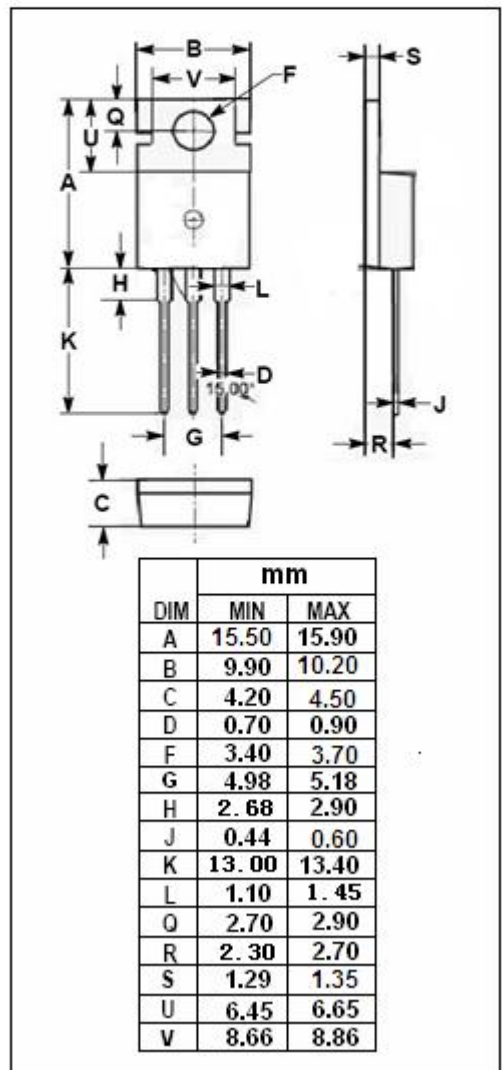
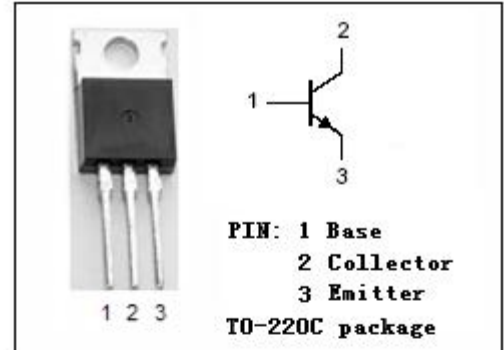
- Good Linearity of  $h_{FE}$
- High Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = 180V(\text{Min})$
- Wide Area of Safe Operation
- Complement to Type 2SA1006

**APPLICATIONS**

- Audio frequency power amplifier
- High frequency power amplifier

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	180	V
$V_{CEO}$	Collector-Emitter Voltage	180	V
$V_{EBO}$	Emitter-Base Voltage	5.0	V
$I_C$	Collector Current-Continuous	1.5	A
$I_{CM}$	Collector Current-Peak	3.0	A
$P_C$	Collector Power Dissipation@ $T_a=25^\circ\text{C}$	1.5	W
	Collector Power Dissipation@ $T_c=25^\circ\text{C}$	25	
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature Range	-55~150	$^\circ\text{C}$



**ELECTRICAL CHARACTERISTICS**

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)*}$	Collector-Emitter Saturation Voltage	$I_C= 500\text{mA}; I_B= 50\text{mA}$			1.0	V
$V_{BE(sat)*}$	Base-Emitter Saturation Voltage	$I_C= 500\text{mA}; I_B= 50\text{mA}$			1.5	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}= 150\text{V}; I_E= 0$			1.0	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}= 3.0\text{V}; I_C=0$			1.0	$\mu\text{A}$
$h_{FE-1*}$	DC Current Gain	$I_C= 5\text{mA}; V_{CE}= 5\text{V}$	30			
$h_{FE-2*}$	DC Current Gain	$I_C= 150\text{mA}; V_{CE}= 5\text{V}$	60		320	
$f_T$	Current-Gain—Bandwidth Product	$I_C= 100\text{mA}; V_{CE}= 10\text{V}$		95		MHz
$C_{OB}$	Output Capacitance	$I_E= 0; V_{CB}= 10\text{V}; f_{test}= 1.0\text{MHz}$		30		pF

★Pulse Test/PW  $\leq 350\mu\text{s}$ , duty  $\leq 2\%$

◆  **$h_{FE-2}$  Classifications**

R	Q	P
60-120	100-200	160-320