

**Silicon NPN Power Transistor**

**2SC2921**

**DESCRIPTION**

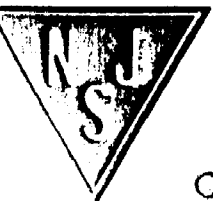
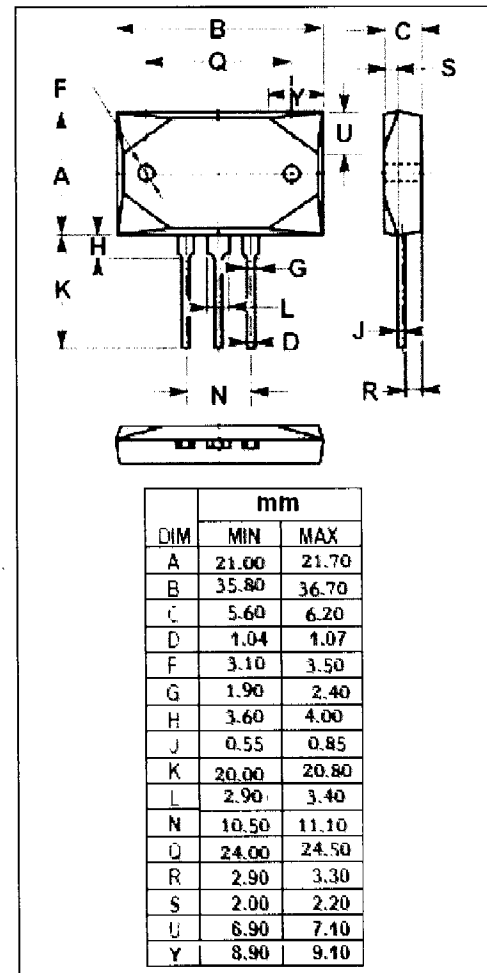
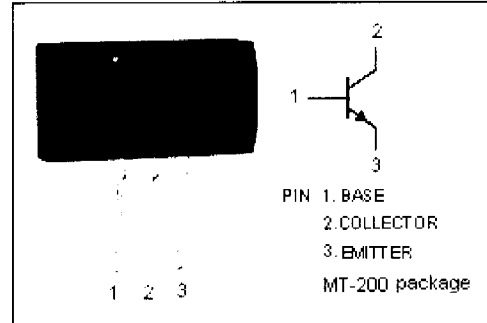
- Collector-Emitter Breakdown Voltage-  
 $V_{(BR)CEO} = 160V(\text{Min})$
- High Power Dissipation
- Complement to Type 2SA1215

**APPLICATIONS**

- For audio and general purpose applications

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	160	V
$V_{CEO}$	Collector-Emitter Voltage	160	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	15	A
$I_B$	Base Current-Continuous	4	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 Range	-55~150	$^\circ\text{C}$



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## ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{(BR)CEO}$	Collector-Emitter Breakdown Voltage	$I_C=25\text{mA}; I_B=0$	160			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=5\text{A}; I_B=0.5\text{A}$			2.0	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB}=160\text{V}; I_E=0$			100	$\mu\text{A}$
$I_{EBO}$	Emitter Cutoff Current	$V_{EB}=5\text{V}; I_C=0$			100	$\mu\text{A}$
$h_{FE}$	DC Current Gain	$I_C=5\text{A}; V_{CE}=4\text{V}$	50		180	
$C_{OB}$	Output Capacitance	$I_E=0; V_{CB}=10\text{V}; f_{test}=1.0\text{MHz}$		200		pF
$f_T$	Current-Gain—Bandwidth Product	$I_E=-2\text{A}; V_{CE}=12\text{V}$	10			MHz

### Switching times

$t_{on}$	Turn-on Time	$I_C=5\text{A}; R_L=12\Omega, I_{B1}=-I_{B2}=0.5\text{A}, V_{CC}=60\text{V}$		0.2		$\mu\text{s}$
$t_{stg}$	Storage Time			1.5		$\mu\text{s}$
$t_f$	Fall Time			0.35		$\mu\text{s}$

### ◆ $h_{FE}$ Classifications

O	P	Y
50-100	70-140	90-180