

**Silicon PNP Power Transistor**

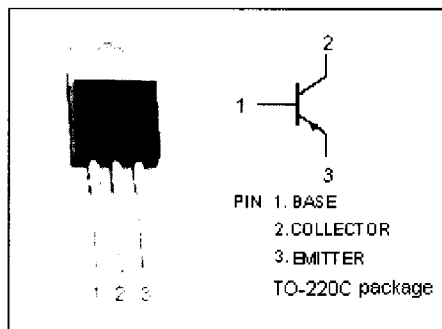
**2SA770**

**DESCRIPTION**

- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -60(V)(Min.)$
- Complement to Type 2SC1985

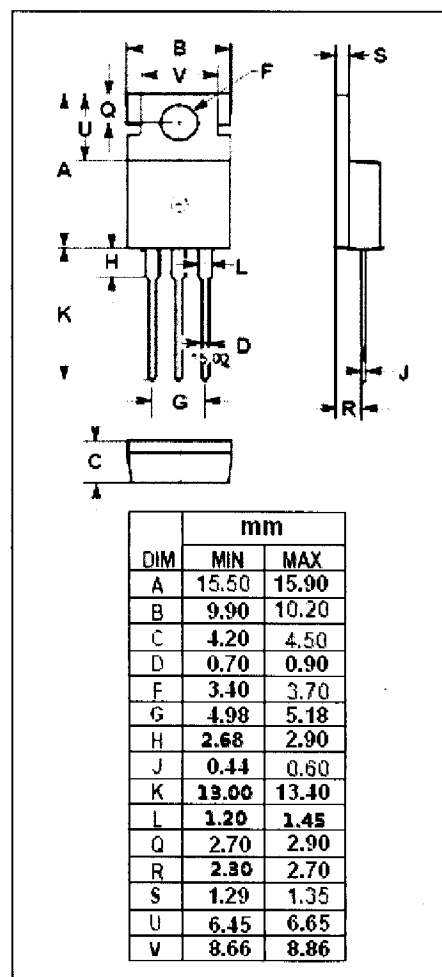
**APPLICATIONS**

- Designed for audio and general purpose applications.



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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-60	V
$V_{CEO}$	Collector-Emitter Voltage	-60	V
$V_{EBO}$	Emitter-Base Voltage	-6	V
$I_C$	Collector Current-Continuous	-6	A
$I_B$	Base Collector Current-Continuous	-3	A
$P_C$	Total Power Dissipation @ $T_c=25^{\circ}C$	40	W
$T_J$	Junction Temperature	150	$^{\circ}C$
$T_{stg}$	Storage Temperature Range	-55~150	$^{\circ}C$



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# 2SA770

## 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	$I_C = -25\text{mA}; I_B = 0$	-60			V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -3\text{A}; I_B = -0.3\text{A}$			-1.0	V
$I_{CBO}$	Collector Cutoff Current	$V_{CB} = -60\text{V}; I_E = 0$			-1.0	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -6\text{V}; I_C = 0$			-1.0	mA
$h_{FE}$	DC Current Gain	$I_C = -1\text{A}; V_{CE} = -4\text{V}$	40			
$f_T$	Current-Gain—Bandwidth Product	$I_E = 0.5\text{A}; V_{CE} = -12\text{V}$		10		MHz

## Switching Times

$t_r$	Rise Time	$I_C = -3\text{A}, R_L = 3\Omega,$ $I_{B1} = -I_{B2} = -0.4\text{A}, V_{CC} = -9\text{V}$		0.9		$\mu\text{s}$
$t_{stg}$	Storage Time			1.0		$\mu\text{s}$
$t_f$	Fall Time			0.1		$\mu\text{s}$