

# isc Silicon PNP Power Transistor

## 2SA770

### DESCRIPTION

- Collector-Emitter Breakdown Voltage-  
:V<sub>(BR)CEO</sub>= -60(V)(Min.)
- Complement to Type 2SC1985
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

### APPLICATIONS

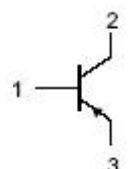
- Designed for audio and general purpose applications.

### ABSOLUTE MAXIMUM RATINGS(T<sub>a</sub>=25°C)

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	-60	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-60	V
V <sub>EBO</sub>	Emitter-Base Voltage	-6	V
I <sub>C</sub>	Collector Current-Continuous	-6	A
I <sub>B</sub>	Base Collector Current-Continuous	-3	A
P <sub>C</sub>	Total Power Dissipation @ T <sub>C</sub> =25°C	40	W
T <sub>J</sub>	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C



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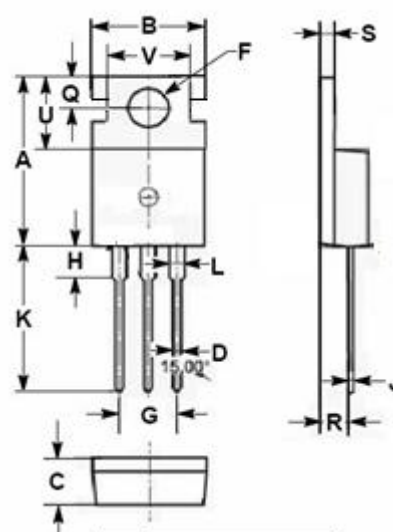


PIN 1. BASE

2. COLLECTOR

3. EMITTER

TO-220C package



DIM	mm	
	MIN	MAX
A	15.50	15.90
B	9.80	10.20
C	4.20	4.50
D	0.70	0.90
F	3.40	3.70
G	4.98	5.18
H	2.68	2.90
J	0.44	0.60
K	12.80	13.40
L	1.20	1.45
Q	2.70	2.90
R	2.30	2.70
S	1.29	1.35
U	6.45	6.65
V	8.66	8.86

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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	$I_C = -25\text{mA}; I_B = 0$	-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		$\mu\text{s}$

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