

## **isc Silicon PNP Power Transistor**

# 2SA1725

#### DESCRIPTION

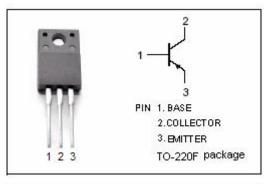
- Low Collector Saturation Voltage
  :V<sub>CE(sat)</sub>= -0.5(V)(Max)@I<sub>C</sub>= -2A
- High Switching Speed
- Complement to Type 2SC4511
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

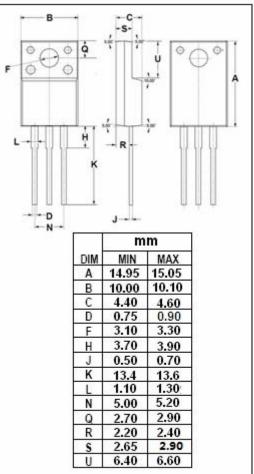


• Designed for audio and general purpose applications.

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CBO</sub>	Collector-Base Voltage	-80	V
V <sub>CEO</sub>	Collector-Emitter Voltage	-80	V
Vebo	Emitter-Base Voltage	-6	V
lc	Collector Current-Continuous	-6	А
I <sub>B</sub>	Base Collector Current-Continuous	-3	А
Pc	Total Power Dissipation @ T <sub>C</sub> =25℃	30	W
TJ	Junction Temperature	150	°C
T <sub>stg</sub>	Storage Temperature Range	-55~150	°C

#### ABSOLUTE MAXIMUM RATINGS(Ta=25℃)





isc website: <u>www.iscsemi.com</u>

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## **ELECTRICAL CHARACTERISTICS**

 $T_{\text{c}}\text{=}25^{\circ}\!\!^{\circ}\!\!^{\circ}_{\circ}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	МАХ	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -25mA ; I <sub>B</sub> = 0	-80			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -2A; I <sub>B</sub> = -0.2A			-0.5	V
Ісво	Collector Cutoff Current	V <sub>CB</sub> = -80V; I <sub>E</sub> = 0			-10	μA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -6V; I <sub>C</sub> = 0			-10	μA
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = -2A ; V <sub>CE</sub> = -4V	50		180	
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>E</sub> = 0.5A ; V <sub>CE</sub> = -12V		20		MHz
Сов	Output Capacitance	I <sub>E</sub> = 0; V <sub>CB</sub> = -10V; f <sub>test</sub> = 1MHz		150		pF

Switching Times

t <sub>on</sub>	Turn-on Time		0.18	μ S
tstg	Storage Time	I <sub>C</sub> = -3A ,R <sub>L</sub> = 10 Ω , I <sub>B1</sub> = -I <sub>B2</sub> = -0.3A,V <sub>CC</sub> = -30V	1.10	μs
t <sub>f</sub>	Fall Time		0.21	μs

### • h<sub>FE</sub> Classifications

0	Р	Y
50-100	70-140	90-180



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