

isc Silicon PNP Transistor

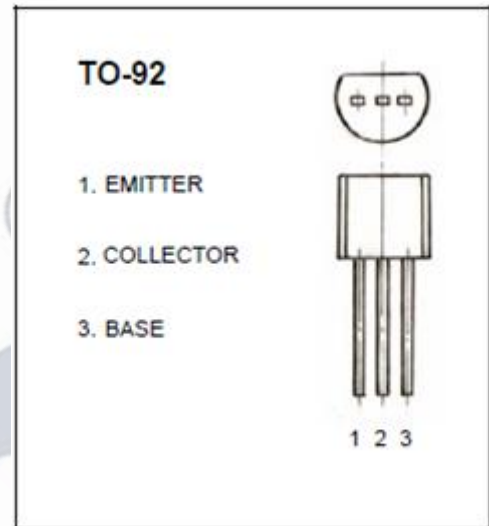
2SA1015

DESCRIPTION

- High Voltage and High Current
 $V_{ce0} = -50V(\text{Min.})$, $I_c = -150mA(\text{Max})$
- Excellent hFE Linearity
- Low Noise
- Complement to Type 2SC1815

APPLICATIONS

- Audio frequency general purpose amplifier Applications
- Driver stage amplifier applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-50	V
V_{CEO}	Collector-Emitter Voltage	-50	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_c	Collector Current	-150	mA
I_B	Base Current	-50	mA
P_C	Collector Power Dissipation @ $T_c = 25^\circ\text{C}$	400	mW
T_J	Junction Temperature	125	$^\circ\text{C}$
T_{stg}	Storage Temperature Range	-55~125	$^\circ\text{C}$

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ELECTRICAL CHARACTERISTICS

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

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -100\text{mA}$; $I_B = -10\text{mA}$			-0.3	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C = -100\text{mA}$; $I_B = -10\text{mA}$			-1.1	V
I_{CBO}	Emitter Cutoff Current	$V_{CB} = -50\text{V}$; $I_E = 0$			-0.1	μA
I_{EBO}	Collector Cutoff Current	$V_{EB} = -5\text{V}$; $I_C = 0$			-0.1	μA
$h_{FE(1)}$	DC Current Gain	$I_C = -2\text{mA}$; $V_{CE} = -6\text{V}$	70		400	
$h_{FE(2)}$	DC Current Gain	$I_C = -150\text{mA}$; $V_{CE} = -6\text{V}$	25			
f_T	Current-Gain—Bandwidth Product	$I_C = -1\text{mA}$; $V_{CE} = -10\text{V}$;	80			MHz
C_{ob}	Collector Output Capacitance	$V_{CB} = -10\text{V}$; $I_E = 0$; $f = 1\text{MHz}$			7	pF
NF	Noise Figure	$V_{CE} = -6\text{V}$, $I_C = -0.1\text{mA}$; $f = 1\text{KHz}$, $R_G = 10\text{K}\Omega$			10	dB

◆ $h_{FE(1)}$ Classifications

O	Y	GR
70-140	120-240	200-400