

# isc Silicon PNP Power Transistor

2SA745A

## DESCRIPTION

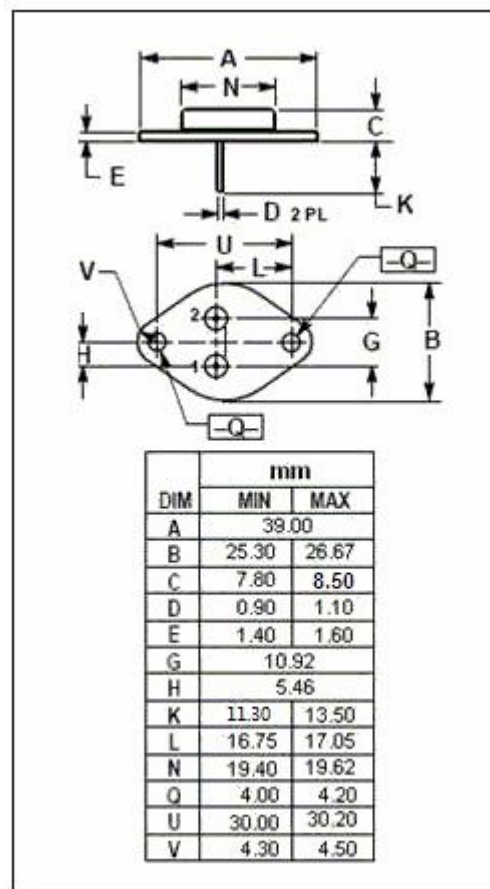
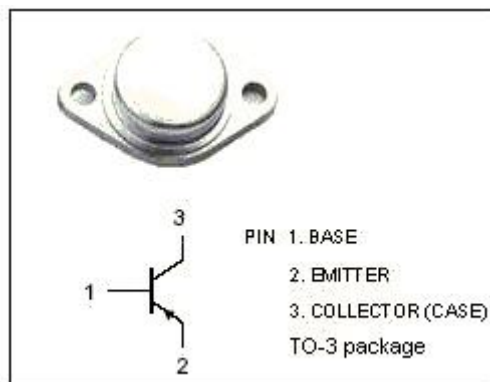
- High Power Dissipation-  
:  $P_C = 70W(\text{Max.})@T_C=25^{\circ}C$
- Collector-Emitter Breakdown Voltage-  
:  $V_{(BR)CEO} = -120V(\text{Min.})$
- Complement to Type 2SC1403A
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

## APPLICATIONS

- Designed for general purpose applications.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-120	V
$V_{CEO}$	Collector-Emitter Voltage	-120	V
$V_{EBO}$	Emitter-Base Voltage	-6	V
$I_C$	Collector Current-Continuous	-8	A
$I_B$	Base Current-Continuous	-3	A
$P_C$	Collector Power Dissipation @ $T_C=25^{\circ}C$	70	W
$T_j$	Junction Temperature	150	$^{\circ}C$
$T_{stg}$	Storage Temperature	-65~150	$^{\circ}C$



**isc Silicon PNP Power Transistor****2SA745A****ELECTRICAL CHARACTERISTICS****T<sub>j</sub>=25°C unless otherwise specified**

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V <sub>(BR)CEO</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = -50mA ; I <sub>B</sub> = 0	-120			V
V <sub>CE(sat)</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = -3A; I <sub>B</sub> = -0.3A			-1.5	V
I <sub>CBO</sub>	Collector Cutoff Current	V <sub>CB</sub> = -120V; I <sub>E</sub> = 0			-1.0	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -6V; I <sub>C</sub> = 0			-1.0	mA
h <sub>FE</sub>	DC Current Gain	I <sub>C</sub> = -3A ; V <sub>CE</sub> = -4V	30			
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>E</sub> = 0.5A ; V <sub>CE</sub> = -12V		15		MHz

**Switching times**

t <sub>r</sub>	Rise Time	I <sub>C</sub> = -3A , R <sub>L</sub> = 4 Ω , V <sub>CC</sub> = -12V I <sub>B1</sub> = -0.2A; I <sub>B2</sub> = 0.1A		1.2		μ s
t <sub>stg</sub>	Storage Time			2.0		μ s
t <sub>f</sub>	Fall Time			0.55		μ s

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