

isc Silicon PNP Power Transistor

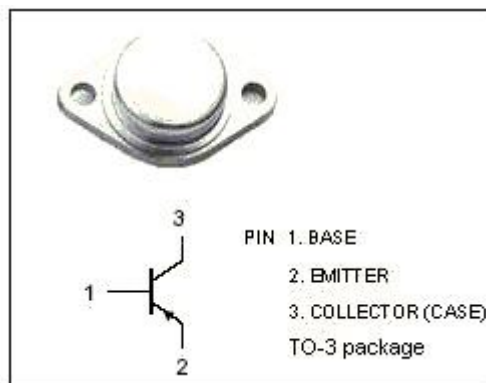
2SA1040

DESCRIPTION

- High Current Capability
- Good Linearity of h_{FE}
- Collector-Emitter Breakdown Voltage-
: $V_{(BR)CEO} = -120V(\text{Min.})$
- Complement to Type 2SC2430
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

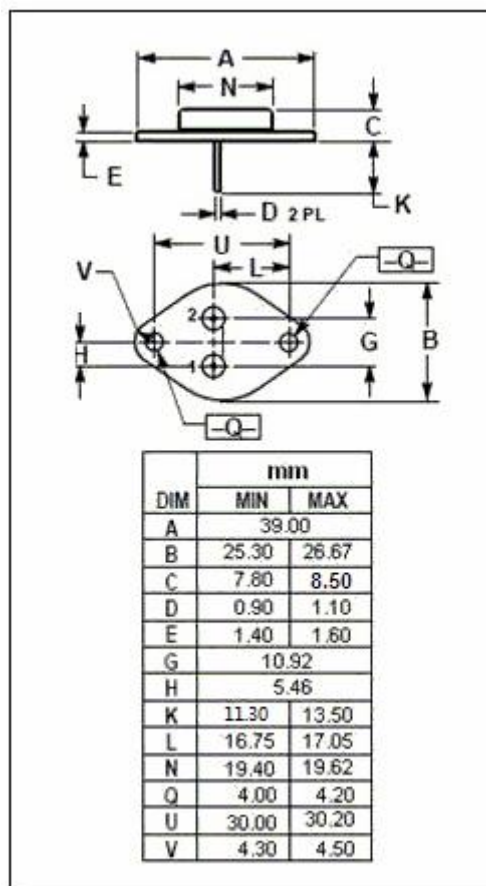
APPLICATIONS

- Designed for power switching , high frequency power amplifier, switching regulator and DC/DC converters.



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

SYMBOL	PARAMETER	VALUE	UNIT
V_{CBO}	Collector-Base Voltage	-120	V
V_{CEO}	Collector-Emitter Voltage	-120	V
V_{EBO}	Emitter-Base Voltage	-5	V
I_c	Collector Current-Continuous	-10	A
P_c	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	100	W
T_j	Junction Temperature	175	$^\circ\text{C}$
T_{stg}	Storage Temperature	-55~175	$^\circ\text{C}$



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ELECTRICAL CHARACTERISTICS
T_j=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	TYP.	MAX	UNIT
V _{(BR)CEO}	Collector-Emitter Breakdown Voltage	I _C = -30mA; I _B = 0	-120			V
V _{(BR)CBO}	Collector-Base Breakdown Voltage	I _C = -1mA; I _E = 0	-120			V
V _{(BR)EBO}	Emitter-Base Breakdown Voltage	I _E = -1mA; I _C = 0	-5			V
V _{CE(sat)}	Collector-Emitter Saturation Voltage	I _C = -5A; I _B = -0.5A			-1.2	V
V _{BE(sat)}	Base-Emitter Saturation Voltage	I _C = -5A; I _B = -0.5A			-1.8	V
I _{CBO}	Collector Cutoff Current	V _{CB} = -120V; I _E = 0			-50	μ A
I _{EBO}	Emitter Cutoff Current	V _{EB} = -5V; I _C = 0			-50	μ A
h _{FE}	DC Current Gain	I _C = -1A; V _{CE} = -5V	35		200	
C _{OB}	Output Capacitance	I _E = 0; V _{CB} = -10V; f= 1.0MHz		400		pF
f _T	Current-Gain—Bandwidth Product	I _C = -1A; V _{CE} = -10V		60		MHz

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