

**isc Silicon PNP Power Transistor**

**2N6420**

**DESCRIPTION**

- Continuous Collector Current- $I_C = -1A$
- Power Dissipation- $P_C = 35W @ T_C = 25^\circ C$
- Collector-Emitter Saturation Voltage-  
:  $V_{CE(sat)} = -5.0 V(Max) @ I_C = -1A$

**APPLICATIONS**

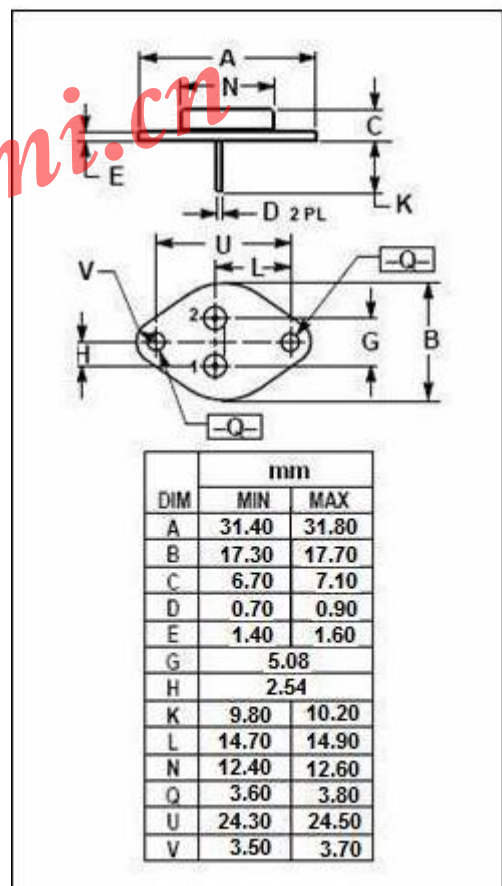
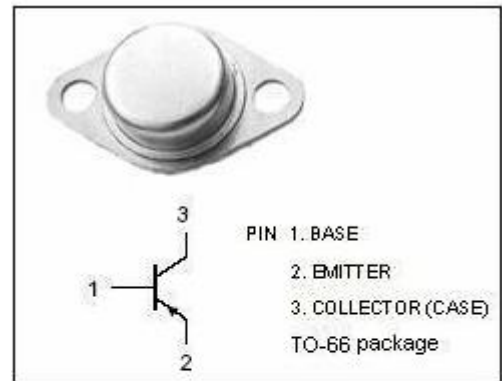
- Designed for high-speed switching and linear amplifier application for high-voltage operational amplifiers, switching regulators, converters, deflection stages and high fidelity amplifiers.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-250	V
$V_{CEO}$	Collector-Emitter Voltage	-175	V
$V_{EBO}$	Emitter-Base Voltage	-6	V
$I_C$	Collector Current-Continuous	-1.0	A
$I_{CM}$	Collector Current-Peak	-5.0	A
$I_B$	Base Current	-1.0	A
$P_C$	Collector Power Dissipation@ $T_C = 25^\circ C$	35	W
$T_J$	Junction Temperature	200	$^\circ C$
$T_{stg}$	Storage Temperature	-65~200	$^\circ C$

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th j-c}$	Thermal Resistance, Junction to Case	5.0	$^\circ C/W$



**isc Silicon PNP Power Transistor****2N6420****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CE(sus)}$	Collector-Emitter Sustaining Voltage	$I_C = -50\text{mA}$ ; $I_B = 0$	-175		V
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C = -1\text{A}$ ; $I_B = -0.125\text{A}$		-5.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -1\text{A}$ ; $V_{CE} = -10\text{V}$		-1.4	V
$I_{CEO}$	Collector Cutoff Current	$V_{CE} = -150\text{V}$ ; $I_B = 0$		-10	mA
$I_{CEX}$	Collector Cutoff Current	$V_{CE} = -225\text{V}$ ; $V_{BE(off)} = -1.5\text{V}$ $V_{CE} = -225\text{V}$ ; $V_{BE(off)} = -1.5\text{V}$ , $T_C = 150^\circ\text{C}$		-1.0 -3.0	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -6\text{V}$ ; $I_C = 0$		-5.0	mA
$h_{FE-1}$	DC Current Gain	$I_C = -0.1\text{A}$ ; $V_{CE} = -10\text{V}$	40		
$h_{FE-2}$	DC Current Gain	$I_C = -0.5\text{A}$ ; $V_{CE} = -10\text{V}$	40	200	
$h_{FE-3}$	DC Current Gain	$I_C = -1\text{A}$ ; $V_{CE} = -10\text{V}$	10		