

**isc Silicon PNP Power Transistor**

**2N6609**

**DESCRIPTION**

- Excellent Safe Operating Area
- High DC Current Gain- $h_{FE}=15(\text{Min})@I_C = -8\text{A}$
- Low Saturation Voltage-  
:  $V_{CE(\text{sat})} = -1.4\text{V}(\text{Max})@ I_C = -8\text{A}$
- Complement to Type 2N3773

**APPLICATIONS**

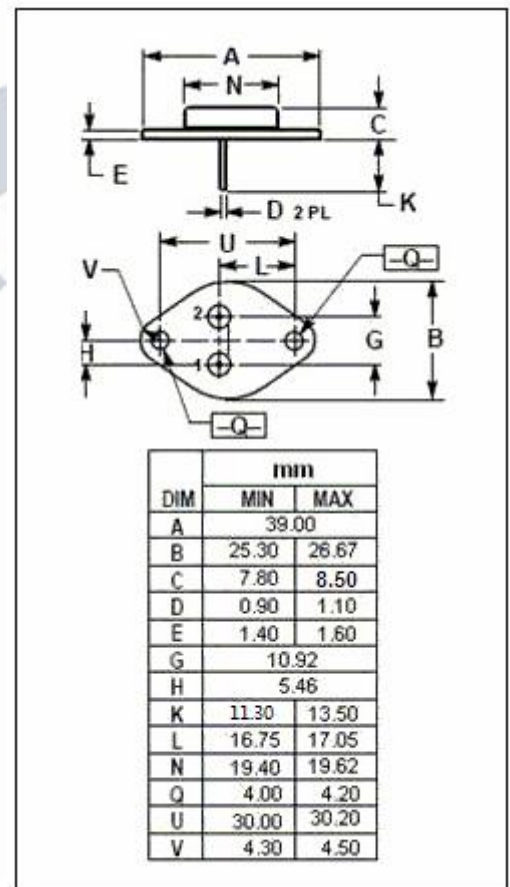
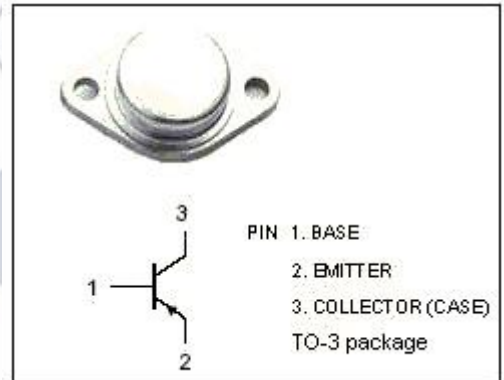
- Designed for high power audio ,disk head positioners and other linear applications, which can also be used in power switching circuits such as relay or solenoid drivers, DC-DC converters or inverters.

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

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CBO}$	Collector-Base Voltage	-160	V
$V_{CEX}$	Collector-Emitter Voltage	-160	V
$V_{CEO}$	Collector-Emitter Voltage	-140	V
$V_{EBO}$	Emitter-Base Voltage	-7	V
$I_C$	Collector Current-Continuous	-16	A
$I_{CP}$	Collector Current-Peak	-30	A
$I_B$	Base Current-Continuous	-4	A
$I_{BP}$	Base Current-Peak	-15	A
$P_C$	Collector Power Dissipation @ $T_c=25^\circ\text{C}$	150	W
$T_J$	Junction Temperature	150	$^\circ\text{C}$
$T_{stg}$	Storage Temperature	-65~150	$^\circ\text{C}$

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	1.17	$^\circ\text{C/W}$



**isc Silicon PNP Power Transistor****2N6609****ELECTRICAL CHARACTERISTICS** $T_C=25^\circ\text{C}$  unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
$V_{CE0(SUS)}$	Collector-Emitter Sustaining Voltage	$I_C = -50\text{mA}; I_B = 0$	-140		V
$V_{CE(sat)-1}$	Collector-Emitter Saturation Voltage	$I_C = -8\text{A}; I_B = -0.8\text{A}$		-1.4	V
$V_{CE(sat)-2}$	Collector-Emitter Saturation Voltage	$I_C = -16\text{A}; I_B = -3.2\text{A}$		-4.0	V
$V_{BE(on)}$	Base-Emitter On Voltage	$I_C = -8\text{A}; V_{CE} = -4\text{V}$		-2.2	V
$I_{CEO}$	Collector Cutoff Current	$V_{CE} = -120\text{V}; I_B = 0$		-10	mA
$I_{EBO}$	Emitter Cutoff Current	$V_{EB} = -7.0\text{V}; I_C = 0$		-5	mA
$h_{FE-1}$	DC Current Gain	$I_C = -8\text{A}; V_{CE} = -4\text{V}$	15	60	
$h_{FE-2}$	DC Current Gain	$I_C = -16\text{A}; V_{CE} = -4\text{V}$	5		