

**DESCRIPTION**

- Complement to Type NPN MJ15022/15024
- Excellent Safe Operating Area
- High DC current Gain

**APPLICATIONS**

- Designed for high power audio, disk head positioners and other linear applications

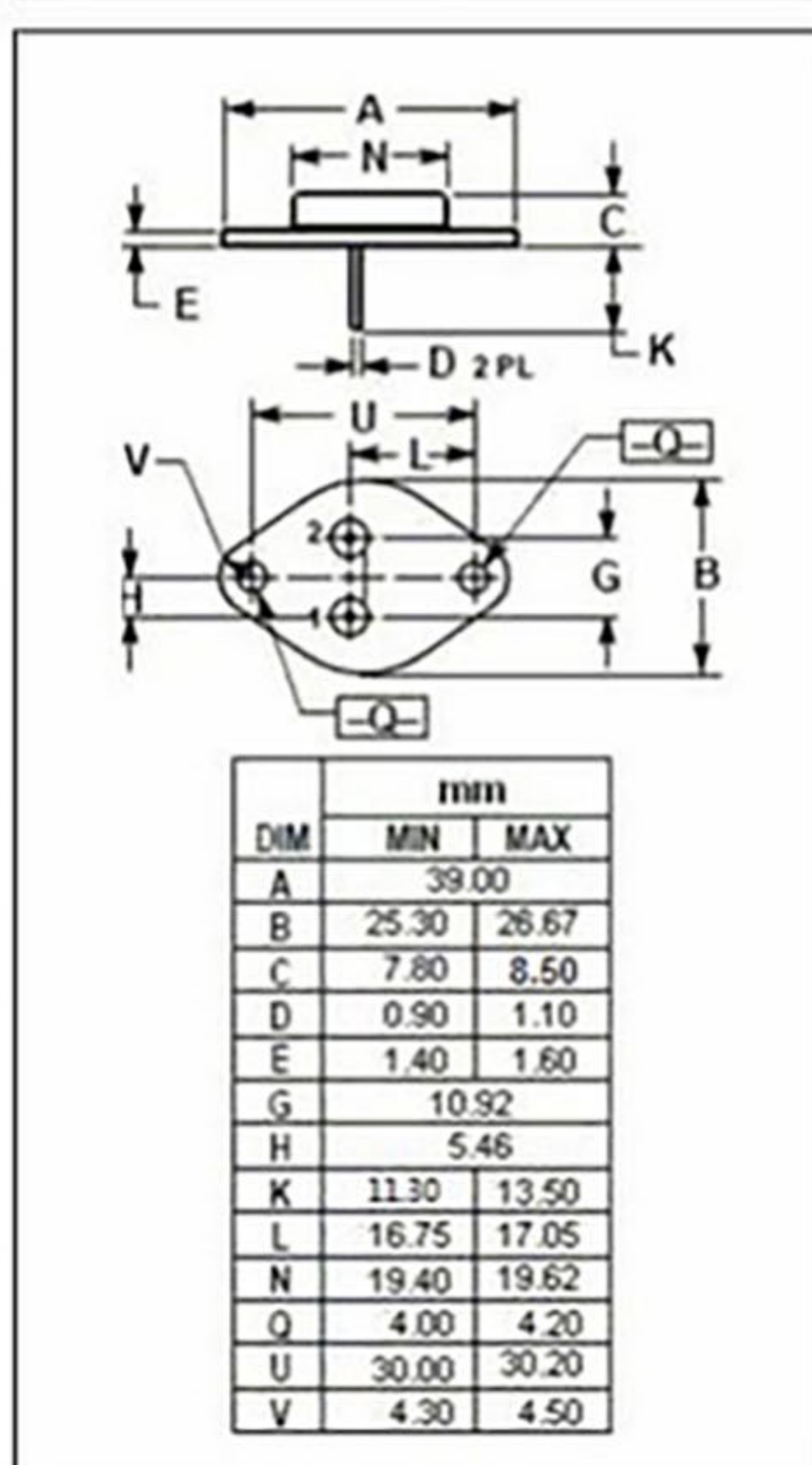
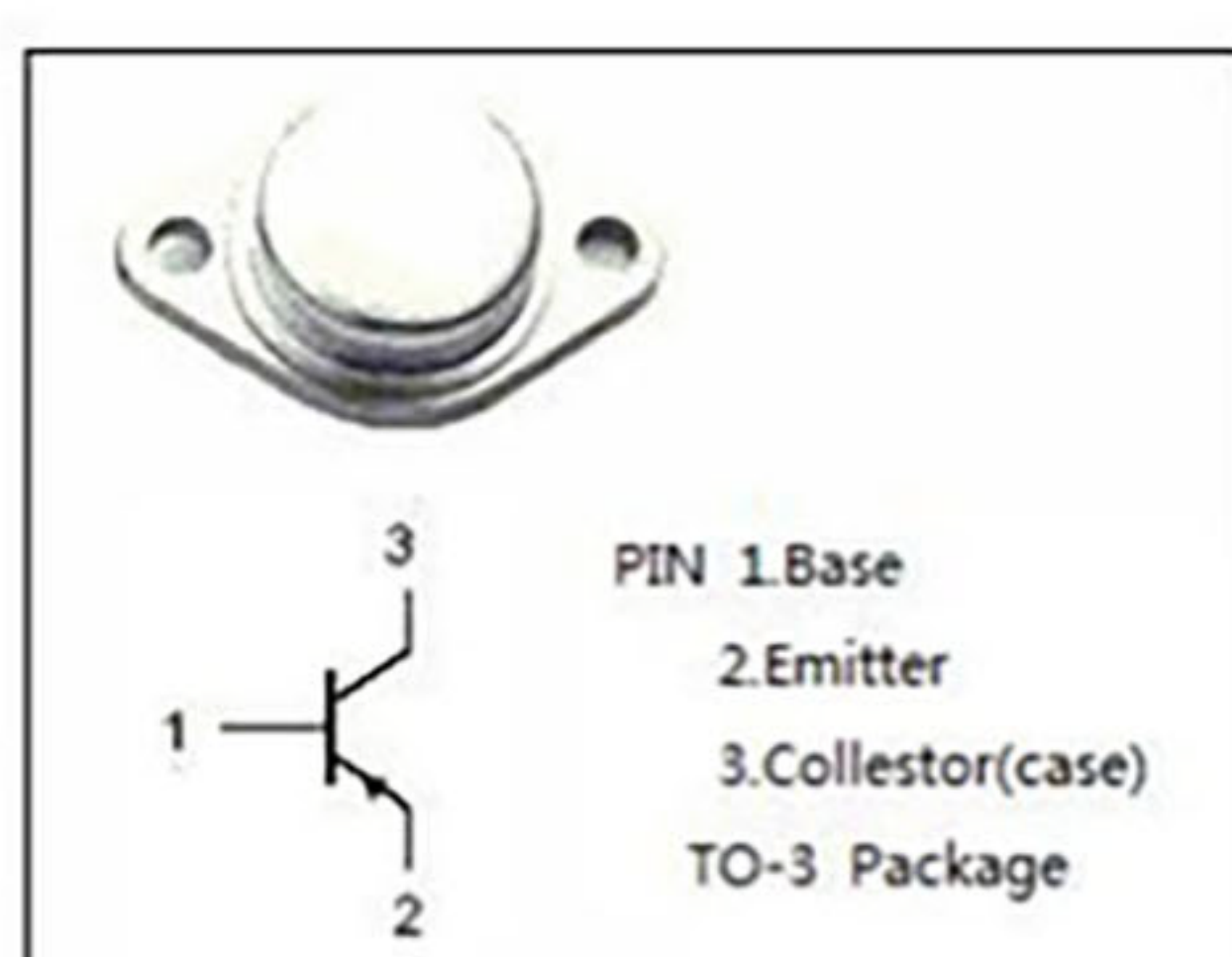
**ABSOLUTE MAXIMUM RATINGS(T<sub>c</sub>=25°C)**

SYMBOL	PARAMETER	VALUE	UNIT
V <sub>CB0</sub>	Collector-Base Voltage	MJ15023	-350
		MJ15025	-400
V <sub>CE0</sub>	Collector-Emitter Voltage	MJ15023	-200
		MJ15025	-250
V <sub>EB0</sub>	Emitter-Base Voltage	-5	V
I <sub>c</sub>	Collector Current-Continuous	-16	A
(1) I <sub>CM</sub>	Collector Current-Peak	-30	A
I <sub>B</sub>	Base Current-Continuous	-5	A
P <sub>D</sub>	Total Power Dissipation @T <sub>c</sub> =25°C	250	W
T <sub>J</sub>	Junction Temperature	-65~200	°C
T <sub>stg</sub>	Storage Temperature	-65~200	°C

**THERMAL CHARACTERISTICS**

SYMBOL	PARAMETER	MAX	UNIT
R <sub>thjc</sub>	Thermal Resistance, Junction to Case	0.70	°C/W

(1) Pulse Test: Pulse Width = 5 ms, Duty Cycle \_ 10%.



**ELECTRICAL CHARACTERISTICS**

T<sub>c</sub>=25°C unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT	
V <sub>CE(sus)</sub> (1)	Collector-Emitter Sustaining Voltage	MJ15023	-200		V	
		MJ15025	-250			
V <sub>CE(sat)1</sub>	Collector-Emitter Saturation Voltage	I <sub>c</sub> = -8A; I <sub>B</sub> = -0.8A		-1.4	V	
V <sub>CE(sat)2</sub>	Collector-Emitter Saturation Voltage	I <sub>c</sub> = -16A; I <sub>B</sub> = -3.2A		-4.0	V	
V <sub>BE(on)</sub>	Base-Emitter On Voltage	I <sub>c</sub> = -8A; V <sub>CE</sub> = -4V		-2.2	V	
I <sub>CE0</sub>	Collector Cutoff Current	MJ15023	V <sub>CE</sub> = -150V; I <sub>B</sub> = 0		-0.5	mA
		MJ15025	V <sub>CE</sub> = -200V; I <sub>B</sub> = 0			
I <sub>CB0</sub>	Collector Cutoff Current	MJ15023	V <sub>CB</sub> = -200V; I <sub>E</sub> = 0		-0.25	mA
		MJ15025	V <sub>CB</sub> = -250V; I <sub>E</sub> = 0			
I <sub>EB0</sub>	Emitter Cutoff Current	V <sub>EB</sub> = -5V; I <sub>C</sub> = 0		-0.5	mA	
h <sub>FE-1</sub>	DC Current Gain	I <sub>c</sub> = -8A; V <sub>CE</sub> = -4V	15	60		
h <sub>FE-2</sub>	DC Current Gain	I <sub>c</sub> = -16A; V <sub>CE</sub> = -4V	5			
I <sub>sb</sub>	Second Breakdown Collector Current With Base Forward Biased	V <sub>CE</sub> = -50Vdc, t = 0.5 s, Nonrepetitive V <sub>CE</sub> = -80Vdc, t = 0.5 s, Nonrepetitive	-5.0	-2.0	A	
C <sub>ob</sub>	Output Capacitance	I <sub>E</sub> = 0; V <sub>CB</sub> = 10V; f <sub>test</sub> = 1.0MHz	300		pF	
f <sub>r</sub>	Current-Gain—Bandwidth Product	I <sub>c</sub> = -1A; V <sub>CE</sub> = -10V; f <sub>test</sub> = 1.0MHz	4		MHz	

(1) Pulse Test: Pulse Width = 5 ms, Duty Cycle \_ 10%.