

Silicon NPN Power Transistor

MJ15026

DESCRIPTION

- Excellent Safe Operating Area
- DC Current Gain-  
:  $h_{FE} = 25(\text{Min.}) @ I_C = 5A$
- Collector-Emitter Saturation Voltage-  
:  $V_{CE(sat)} = 1.0V(\text{Max}) @ I_C = 5A$
- Complement to Type MJ15027

APPLICATIONS

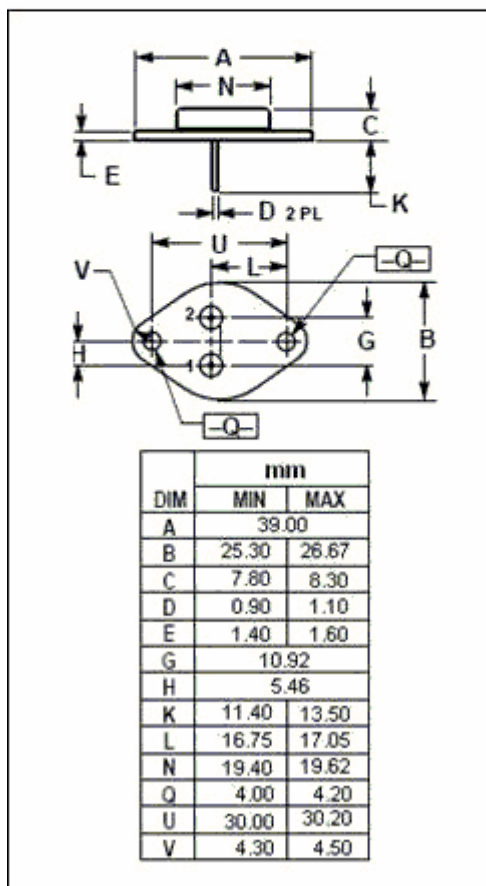
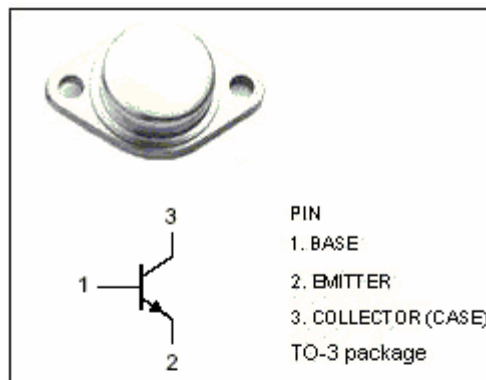
- Designed for high power audio, disk head positioners , and other linear applications.

ABSOLUTE MAXIMUM RATINGS( $T_a=25$  )

SYMBOL	PARAMETER	VALUE	UNIT
$V_{CEO}$	Collector-Emitter Voltage	200	V
$V_{CBO}$	Collector-Base Voltage	200	V
$V_{EBO}$	Emitter-Base Voltage	5	V
$I_C$	Collector Current-Continuous	16	A
$I_{CM}$	Collector Current-Peak	32	A
$I_B$	Base Current-Continuous	7	A
$P_D$	Total Power Dissipation@ $T_C=25$	250	W
$T_j$	Junction Temperature	200	
$T_{stg}$	Storage Temperature	-65~200	

THERMAL CHARACTERISTICS

SYMBOL	PARAMETER	MAX	UNIT
$R_{th\ j-c}$	Thermal Resistance, Junction to Case	0.7	/W



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## ELECTRICAL CHARACTERISTICS

T<sub>j</sub>=25 unless otherwise specified

SYMBOL	PARAMETER	CONDITIONS	MIN	MAX	UNIT
V <sub>CEO(SUS)</sub>	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = 20mA ; I <sub>B</sub> = 0	200		V
V <sub>CE(sat)-1</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 5A; I <sub>B</sub> = 0.5A		1.0	V
V <sub>CE(sat)-2</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 16A; I <sub>B</sub> = 4A		3.0	V
V <sub>BE(sat)</sub>	Base-Emitter Saturation Voltage	I <sub>C</sub> = 5A; I <sub>B</sub> = 0.5A		2.0	V
I <sub>CEO</sub>	Collector Cutoff Current	V <sub>CE</sub> = 120V; I <sub>B</sub> = 0		1.0	mA
I <sub>CEX</sub>	Collector Cutoff Current	V <sub>CE</sub> = 200V; V <sub>BE(off)</sub> = 1.5V		1.0	mA
I <sub>EBO</sub>	Emitter Cutoff Current	V <sub>EB</sub> = 5V; I <sub>C</sub> = 0		1.0	mA
h <sub>FE-1</sub>	DC Current Gain	I <sub>C</sub> = 5A ; V <sub>CE</sub> = 5V	25	150	
h <sub>FE-2</sub>	DC Current Gain	I <sub>C</sub> = 16A ; V <sub>CE</sub> = 5V	6		
f <sub>T</sub>	Current-Gain—Bandwidth Product	I <sub>C</sub> = 1A ; V <sub>CE</sub> = 10V; f <sub>test</sub> = 1.0MHz	15		MHz
C <sub>OB</sub>	Output Capacitance	I <sub>E</sub> = 0 ; V <sub>CB</sub> = 10V; f <sub>test</sub> = 1.0MHz		750	pF