

# EVVOSEMI<sup>®</sup>

THINK CHANGE DO



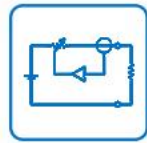
ESD



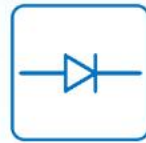
TVS



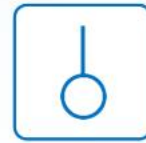
MOS



LDO



Diode



Sensor



DC-DC

## Product Specification

▶ Domestic	Part Number	MJ15023 / MJ15025
▶ Overseas	Part Number	MJ15023 / MJ15025
▶ Equivalent	Part Number	MJ15023 / MJ15025

EV is the abbreviation of name EVVO

## Silicon PNP Power Transistors

### DESCRIPTION

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

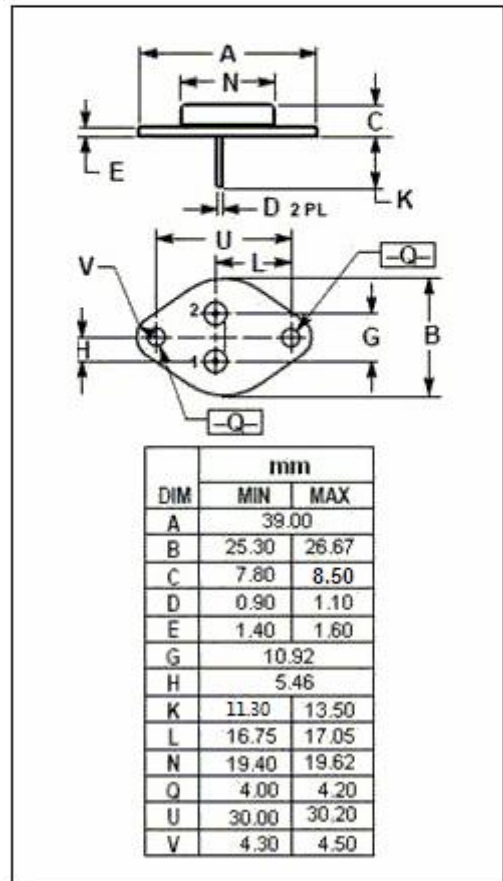
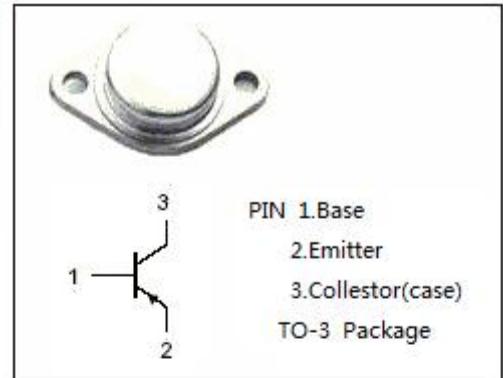
### APPLICATIONS

- 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>CBO</sub>	Collector-Base Voltage	MJ15023	-350	V
		MJ15025	-400	
V <sub>CEO</sub>	Collector-Emitter Voltage	MJ15023	-200	V
		MJ15025	-250	
V <sub>EBO</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	
SYMBOL	PARAMETER	MAX	UNIT	
R <sub>th j-c</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>CEO(SUS)</sub> (1)	Collector-Emitter Sustaining Voltage	MJ15023	I <sub>C</sub> = -50mA ; I <sub>B</sub> = 0	-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>CEO</sub>	Collector Cutoff Current	MJ15023		-0.5	mA
		MJ15025			
I <sub>CBO</sub>	Collector Cutoff Current	MJ15023		-0.25	mA
		MJ15025			
I <sub>EBO</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>s/b</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>T</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%.

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