

COMPLEMENTARY SILICON POWER TRANSISTORS

...designed for use in general-purpose amplifier and switching application.

FEATURES

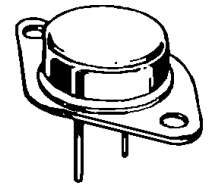
- * Power Dissipation – $P_C = 200W$ @ $T_c = 25^\circ C$
- * DC Current Gain – $hFE = 25\sim 100$ @ $I_c = 7.5A$
- * $V_{CE(SAT)} = 0.8V$ (max) @ $I_c = 7.5A, I_B = 750mA$

**NPN
MJ802**

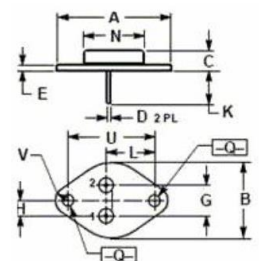
**30 AMPERES
COMPLEMENTARY
SILICON POWER
TRANSISTORS
100 VOLTS
200 WATTS**

MAXIMUM RATINGS

Rating	Symbol	MJ802	Unit
Collector-Emitter Voltage	V_{CEO}	90	V
Collector-Base Voltage	V_{CBO}	100	V
Emitter-Base Voltage	V_{EBO}	4.0	V
Collector Current-Continuous	I_C	30	A
Base Current-Continuous	I_B	7.5	A
Collector Power Dissipation @ $T_c=25^\circ C$	P_C	200	W
Junction Temperature	T_J	150	$^\circ C$
Storage Temperature Range	T_{STG}	-65 to +200	$^\circ C$



TO-3



PIN 1.BASE
2.EMITTER
COLLECTOR(CASE)

THERMAL CHARACTERISTICS

Characteristic	Symbol	Max	Unit
Thermal Resistance Junction to Case	$R_{th\ j-c}$	0.875	$^\circ C/W$

DIM	MILLIMETERS	
	MIN	MAX
A	39.00	
B	25.30	26.67
C	7.80	8.50
D	0.90	1.10
E	1.40	1.60
G	10.92	
H	5.46	
K	11.30	13.50
L	16.75	17.05
N	19.40	19.62
O	4.00	4.20
U	30.00	30.20
V	4.30	4.50

ELECTRICAL CHARACTERISTICS ($T_C=25^{\circ}\text{C}$ unless otherwise noted)

Characteristic	Symbol	Min.	Max	Unit
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OFF CHARACTERISTICS

Collector-Emitter Sustaining Voltage ($I_C = 50\text{ mA}$, $I_B = 0$)	$V_{CE(SUS)}$	90		V
Collector Cutoff Current ($V_{CB} = 100\text{ V}$, $I_E = 0$)	I_{CBO}		1.0	mA
Emitter Cutoff Current ($V_{EB} = 4.0\text{ V}$, $I_C = 0$)	I_{EBO}		1.0	mA

ON CHARACTERISTICS(1)

DC Current Gain ($I_C = 7.5\text{ A}$, $V_{CE} = 2.0\text{ V}$)	h_{FE}	25	100	
Collector-Emitter Saturation Voltage ($I_C = 7.5\text{ A}$, $I_B = 0.75\text{ A}$)	$V_{CE(SAT)}$		0.8	V
Base-Emitter On Voltage ($I_C = 7.5\text{ A}$, $V_{CE} = 2.0\text{ V}$)	$V_{BE(ON)}$		1.3	V
Base-Emitter Saturation Voltage ($I_C = 7.5\text{ A}$, $I_B = 0.75\text{ A}$)	$V_{BE(SAT)}$		1.3	V
Current-Gain—Bandwidth Product $I_C = 1\text{ A}$; $V_{CE} = 10\text{ V}$; $f = 1.0\text{ MHz}$	f_T	2.0		MHz

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