

## COMPLEMENTARY SILICON POWER DARLINGTON TRANSISTORS

- SGS-THOMSON PREFERRED SALESTYPES
- COMPLEMENTARY PNP - NPN DEVICES
- MONOLITHIC DARLINGTON CONFIGURATION
- INTEGRATED ANTIPARALLEL COLLECTOR-EMITTER DIODE

### APPLICATIONS

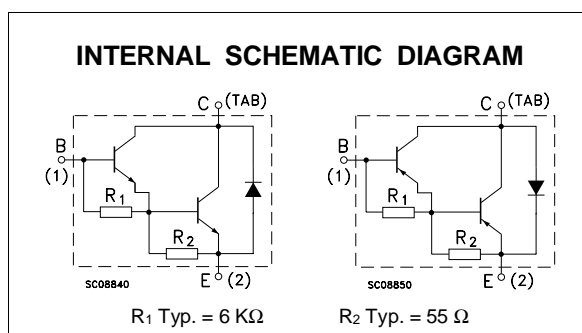
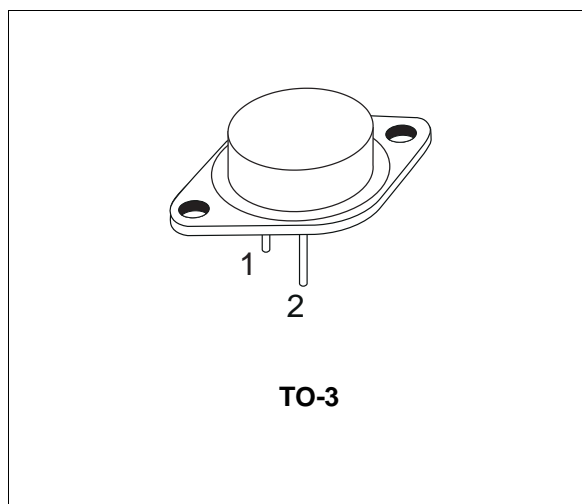
- GENERAL PURPOSE SWITCHING
- GENERAL PURPOSE AMPLIFIERS

### DESCRIPTION

The MJ4035 is silicon epitaxial-base NPN power transistor in monolithic Darlington configuration mounted in Jedec TO-3 metal case.

It is intended for use in general purpose and amplifier applications.

The complementary PNP type is the MJ4032.



### ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value		Unit
		PNP	NPN	
V <sub>CBO</sub>	Collector-Base Voltage (I <sub>E</sub> = 0)	<b>MJ4032</b>		V
V <sub>CEO</sub>	Collector-Emitter Voltage (I <sub>B</sub> = 0)	<b>MJ4035</b>		
V <sub>EBO</sub>	Emitter-Base Voltage (I <sub>C</sub> = 0)	100		V
I <sub>C</sub>	Collector Current	5		V
I <sub>B</sub>	Base Current	16		A
P <sub>tot</sub>	Total Dissipation at T <sub>c</sub> ≤ 25 °C	0.5		A
T <sub>stg</sub>	Storage Temperature	150		W
T <sub>j</sub>	Max. Operating Junction Temperature	-65 to 200		°C
		200		°C

For PNP types voltage and current values are negative.

## MJ4032 / MJ4035

### THERMAL DATA

R <sub>thj-case</sub>	Thermal Resistance Junction-case	Max	1.17	°C/W
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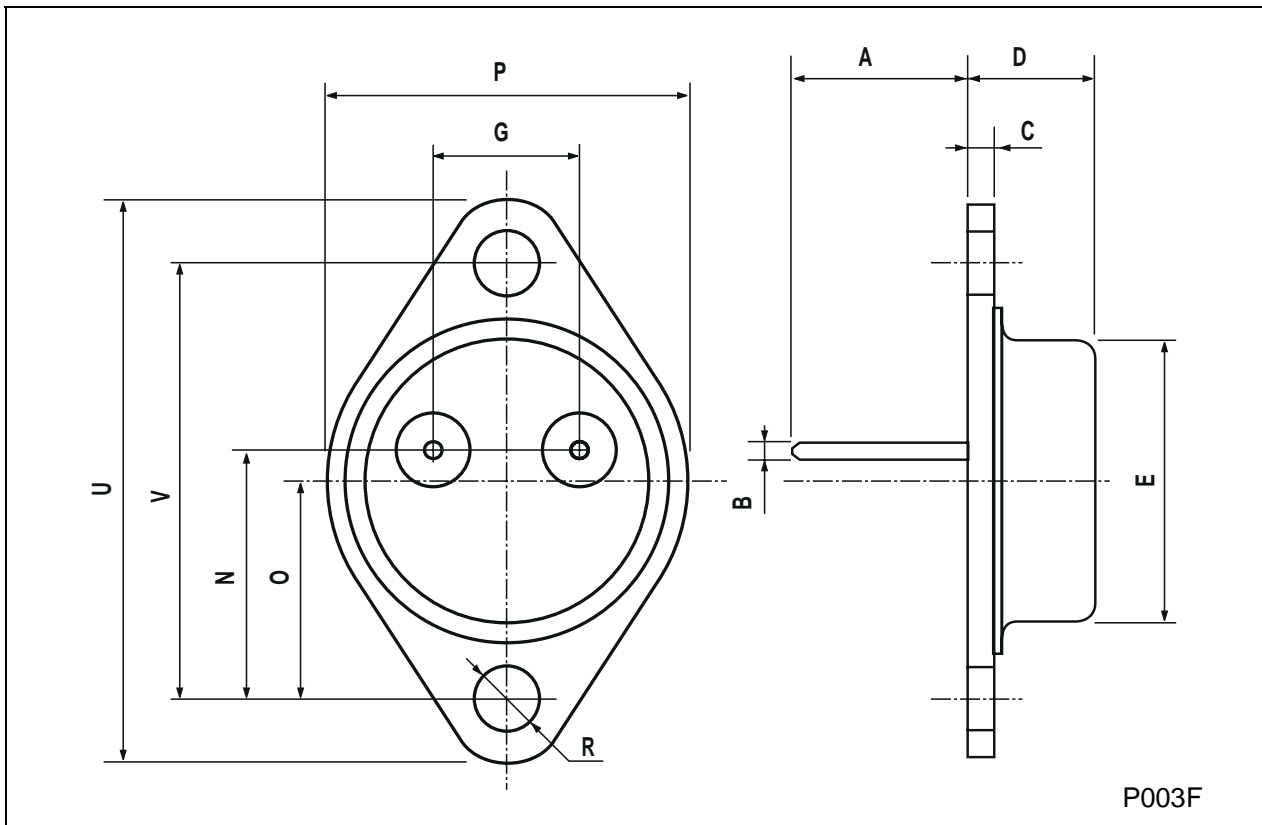
### ELECTRICAL CHARACTERISTICS (T<sub>case</sub> = 25 °C unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I <sub>CER</sub>	Collector Cut-off Current (R <sub>BE</sub> = 1KΩ)	V <sub>CE</sub> = 100 V V <sub>CE</sub> = 100 V T <sub>C</sub> = 150 °C			1 5	mA mA
I <sub>CEO</sub>	Collector Cut-off Current (I <sub>B</sub> = 0)	V <sub>CE</sub> = 50 V			3	mA
I <sub>EBO</sub>	Emitter Cut-off Current (I <sub>C</sub> = 0)	V <sub>EB</sub> = 5 V			5	mA
V <sub>(BR)CEO*</sub>	Collector-Emitter Breakdown Voltage	I <sub>C</sub> = 100 mA	100			V
V <sub>CE(sat)*</sub>	Collector-Emitter Saturation Voltage	I <sub>C</sub> = 10 A I <sub>B</sub> = 40 mA I <sub>C</sub> = 16 A I <sub>B</sub> = 80 mA			2.5 4	V V
V <sub>BE*</sub>	Base-Emitter Voltage	I <sub>C</sub> = 10 A V <sub>CE</sub> = 3 V			3	V
h <sub>FE*</sub>	DC Current Gain	I <sub>C</sub> = 10 A V <sub>CE</sub> = 3 V	1000			

\* Pulsed: Pulse duration = 300 μs, duty cycle 1.5 %  
For PNP type voltage and current values are negative.

**TO-3 MECHANICAL DATA**

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	11.00		13.10	0.433		0.516
B	0.97		1.15	0.038		0.045
C	1.50		1.65	0.059		0.065
D	8.32		8.92	0.327		0.351
E	19.00		20.00	0.748		0.787
G	10.70		11.10	0.421		0.437
N	16.50		17.20	0.649		0.677
P	25.00		26.00	0.984		1.023
R	4.00		4.09	0.157		0.161
U	38.50		39.30	1.515		1.547
V	30.00		30.30	1.187		1.193



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