

COMPLEMENTARY SILICON POWER DARLINGTON TRANSISTORS

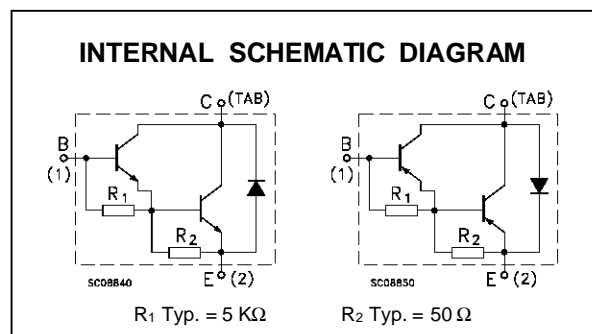
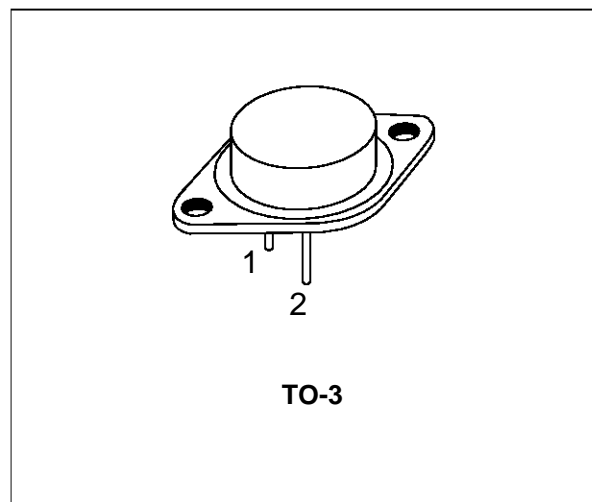
■ SGS-THOMSON PREFERRED SALESTYPES

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	MJ4032	
		NPN	MJ4035	
V _{CBO}	Collector-Base Voltage (I _E = 0)		100	V
V _{CEO}	Collector-Emitter Voltage (I _B = 0)		100	V
V _{EBO}	Emitter-Base Voltage (I _C = 0)		5	V
I _C	Collector Current		16	A
I _B	Base Current		0.5	A
P _{tot}	Total Dissipation at T _c ≤ 25 °C		150	W
T _{stg}	Storage Temperature		-65 to 200	°C
T _j	Max. Operating Junction Temperature		200	°C

For PNP types voltage and current values are negative.

MJ4032/MJ4035

THERMAL DATA

$R_{thj-case}$	Thermal Resistance Junction-case	Max	1.17	°C/W
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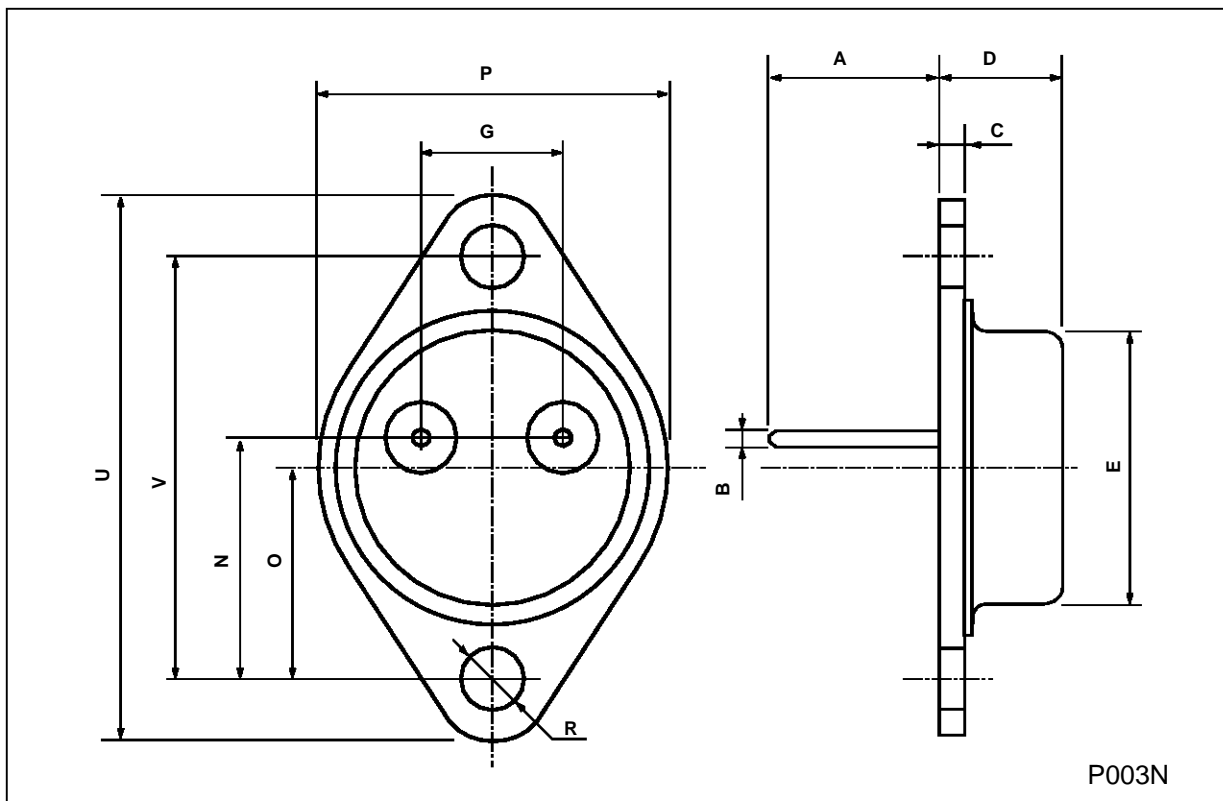
ELECTRICAL CHARACTERISTICS ($T_{case} = 25\text{ °C}$ unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{CER}	Collector Cut-off Current ($R_{BE} = 1K\Omega$)	$V_{CE} = 100\text{ V}$ $V_{CE} = 100\text{ V}$ $T_C = 150\text{ °C}$			1 5	mA mA
I_{CEO}	Collector Cut-off Current ($I_B = 0$)	$V_{CE} = 50\text{ V}$			3	mA
I_{EBO}	Emitter Cut-off Current ($I_C = 0$)	$V_{EB} = 5\text{ V}$			5	mA
$V_{(BR)CEO}^*$	Collector-Emitter Breakdown Voltage	$I_C = 100\text{ mA}$	100			V
$V_{CE(sat)}^*$	Collector-Emitter Saturation Voltage	$I_C = 10\text{ A}$ $I_B = 40\text{ mA}$ $I_C = 16\text{ A}$ $I_B = 80\text{ mA}$			2.5 4	V V
V_{BE}^*	Base-Emitter Voltage	$I_C = 10\text{ A}$ $V_{CE} = 3\text{ V}$			3	V
h_{FE}^*	DC Current Gain	$I_C = 10\text{ A}$ $V_{CE} = 3\text{ V}$	1000			

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

TO-3 (H) MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A		11.7			0.460	
B	0.96		1.10	0.037		0.043
C			1.70			0.066
D			8.7			0.342
E			20.0			0.787
G		10.9			0.429	
N		16.9			0.665	
P			26.2			1.031
R	3.88		4.09	0.152		0.161
U			39.50			1.555
V		30.10			1.185	



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