



MJ4032
MJ4035

COMPLEMENTARY SILICON POWER DARLINGTON TRANSISTORS

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

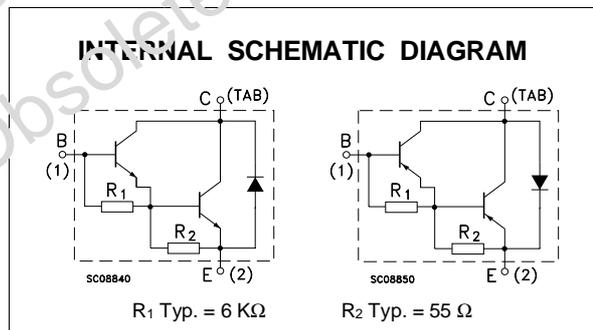
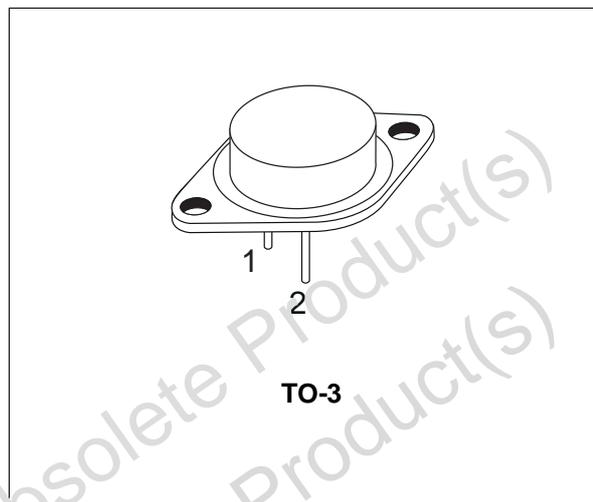
APPLICATIONS

- GENERAL PURPOSE SWITCHING
- GENERAL PURPOSE AMPLIFIERS

DESCRIPTION

The MJ4035 is a 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	$^{\circ}C/W$
----------------	----------------------------------	-----	------	---------------

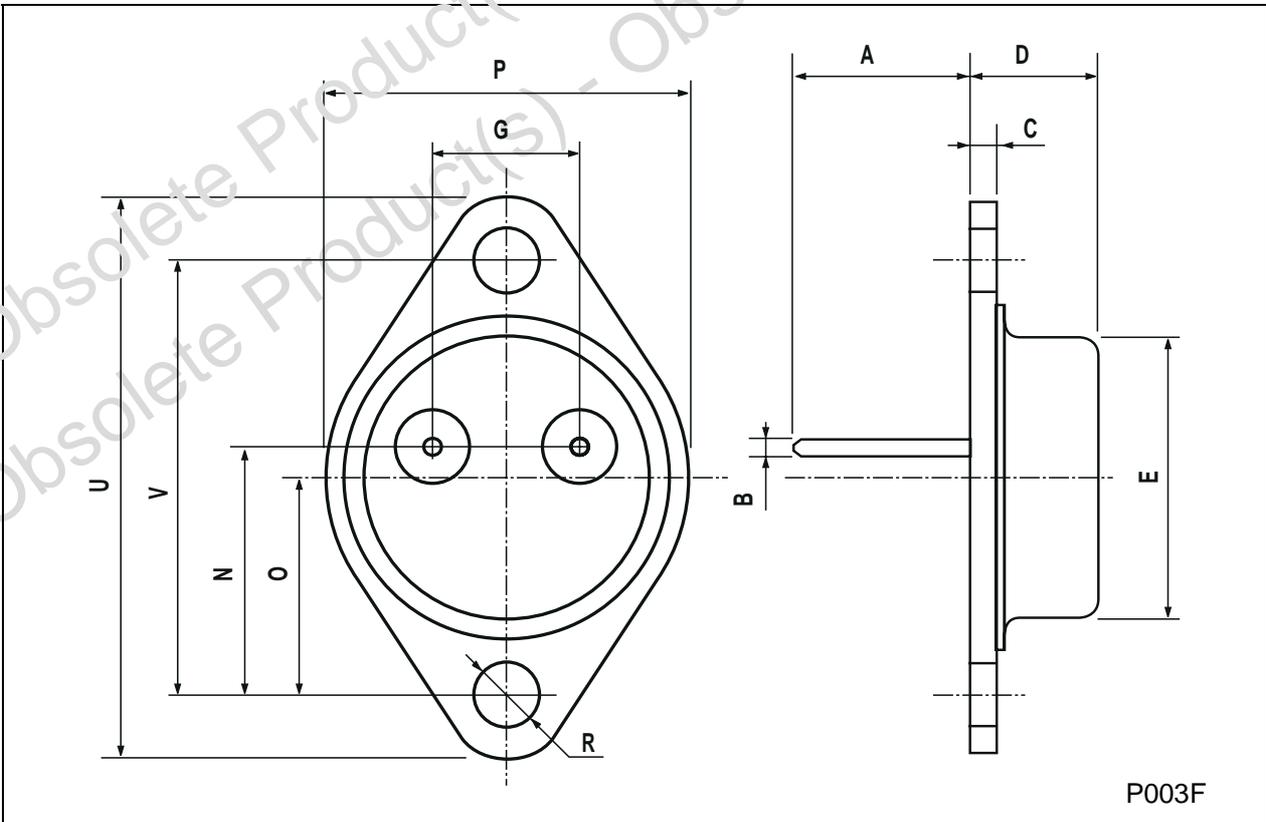
ELECTRICAL CHARACTERISTICS ($T_{case} = 25^{\circ}C$ unless otherwise specified)

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



Obsolete Product(s) - Obsolete Product(s)
Obsolete Product(s) - Obsolete Product(s)

Information furnished is believed to be accurate and reliable. However, STMicroelectronics assumes no responsibility for the consequences of use of such information nor for any infringement of patents or other rights of third parties which may result from its use. No license is granted by implication or otherwise under any patent or patent rights of STMicroelectronics. Specification mentioned in this publication are subject to change without notice. This publication supersedes and replaces all information previously supplied. STMicroelectronics products are not authorized for use as critical components in life support devices or systems without express written approval of STMicroelectronics.

The ST logo is a trademark of STMicroelectronics.

All other names are the property of their respective owners.

© 2003 STMicroelectronics – All Rights reserved

STMicroelectronics GROUP OF COMPANIES

Australia - Belgium - Brazil - Canada - China - Czech Republic - Finland - France - Germany - Hong Kong - India - Israel - Italy - Japan - Malaysia - Malta - Morocco - Singapore - Spain - Sweden - Switzerland - United Kingdom - United States.

<http://www.st.com>

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

[STMicroelectronics:](#)

[MJ4032](#) [MJ4035](#)