New Jersey Semi-Conductor Products, Inc.

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MJ4032 MJ4035

COMPLEMENTARY SILICON POWER DARLINGTON TRANSISTORS

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

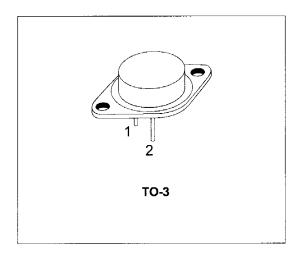
APPLICATIONS

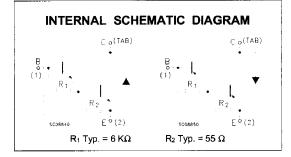
- GENERAL PURPOSE SWITCHING
- GENERAL PURPOSE AMPLIFIERS

DESCRIPTION

The MJ4035 is a silicon Epitaxial-Base NPN power transistor in monolithic Darlington configuration mounted in Jedec TO-3 metal case. It is inteded 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		
Vсво	Collector-Base Voltage (I _E = 0)		100	V	
VCEO	Collector-Emitter Voltage (I _B = 0)		Voltage (I _B = 0) 100		
VEBO	Emitter-Base Voltage (I _C = 0)		5	V	
lc	Collector Current		16	A	
lв	Base Current		0.5	A	
Ptot	Total Dissipation at T _c ≤ 25 °C		150	w	
Tstg	Storage Temperature		-65 to 200	°C	
Ti	Max. Operating Junction Temperature	200	°C		

For PNP types voltage and current values are negative.

NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

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MJ4032 / MJ4035

THERMAL DATA

R _{thj-case}	Thermal	Resistance	Junction-case	Max	1.17	°C/W	
	L					0,11	ı.

ELECTRICAL CHARACTERISTICS (T_{case} = 25 °C unless otherwise specified)

Symbol	Parameter	Test Conditions		Min.	Тур.	Max.	Unit	
ICER	Collector Cut-off Current ($R_{BE} = 1K\Omega$)	V _{CE} = 100 V V _{CE} = 100 V	T _c = 150 °C			1 5	mA mA	
ICEO	Collector Cut-off Current (I _B = 0)	V _{CE} = 50 V				3	mA	
I _{EBO}	Emitter Cut-off Current (Ic = 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 I _C = 16 A	l _B = 40 mA l _B = 80 mA			2.5 4	V V	
V _{BE} *	Base-Emitter Voltage	lc = 10 A	V _{CE} = 3 V			3		
h _{FE} *	DC Current Gain	I _C = 10 A	V _{CE} = 3 V	1000				

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