

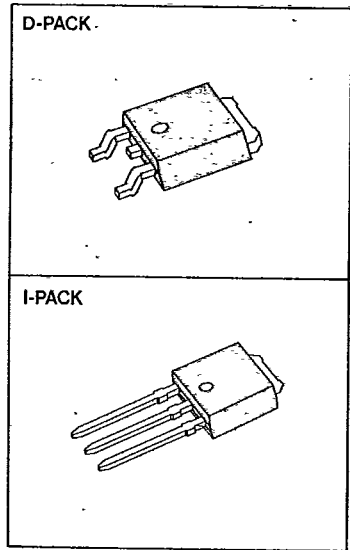
# MJD45H11 PNP EPITAXIAL SILICON TRANSISTOR

GENERAL PURPOSE POWER AND SWITCHING-  
SUCH AS OUTPUT OR DRIVER STAGES IN  
APPLICATIONS. D-PACK FOR SURFACE  
MOUNT APPLICATIONS

- Lead Formed for Surface Mount Applications (No Suffix)
- Straight Lead (I-PACK, "-1" Suffix)
- Electrically Similar to Popular D45H
- Fast Switching Speeds
- Low Collector Emitter Saturation Voltage

## ABSOLUTE MAXIMUM RATINGS (T<sub>a</sub> = 25°C)

Characteristic	Symbol	Rating	Unit
Collector Emitter Voltage	V <sub>CEO</sub>	-80	V
Emitter Base Voltage	V <sub>EBO</sub>	-5	V
Collector Current (DC)	I <sub>C</sub>	-8	A
Collector Current (Pulse)	I <sub>C</sub>	-16	A
Collector Dissipation (T <sub>c</sub> = 25°C)	P <sub>c</sub>	-20	W
Collector Dissipation (T <sub>a</sub> = 25°C)	P <sub>c</sub>	1.75	W
Junction Temperature	T <sub>J</sub>	150	°C
Storage Temperature	T <sub>stg</sub>	-55 ~ 150	°C



## ELECTRICAL CHARACTERISTICS (T<sub>a</sub> = 25°C)

Characteristic	Symbol	Test Condition	Min	Typ	Max	Unit
Collector Emitter Sustaining Voltage	V <sub>CEO(sus)</sub>	I <sub>C</sub> = -30mA, I <sub>B</sub> = 0	-80			V
Collector Cutoff Current	I <sub>CEO</sub>	V <sub>CE</sub> = -80V, I <sub>B</sub> = 0			-10	μA
Emitter Cutoff Current	I <sub>EBO</sub>	V <sub>EB</sub> = -5V, I <sub>C</sub> = 0			-50	μA
DC Current Gain	h <sub>FE</sub>	V <sub>CE</sub> = -1V, I <sub>C</sub> = -2A V <sub>CE</sub> = -1V, I <sub>C</sub> = -4A	60 40			
Collector Emitter Saturation Voltage	V <sub>CE(sat)</sub>	I <sub>C</sub> = -8A, I <sub>B</sub> = -0.4A			-1	V
Base Emitter Saturation Voltage	V <sub>BE(sat)</sub>	I <sub>C</sub> = -8A, I <sub>B</sub> = -0.8A			-1.5	V
Current Gain Bandwidth Product	f <sub>T</sub>	V <sub>CE</sub> = -10V, I <sub>C</sub> = -0.5A f = 20MHz		40		MHz
Collector Capacitance	C <sub>CB</sub>	V <sub>CB</sub> = -10V, f = 1MHz		230		pF
Turn On Time	t <sub>on</sub>	I <sub>C</sub> = -5A, I <sub>B1</sub> = -0.5A		135		nS
Storage Time	t <sub>stg</sub>	I <sub>B1</sub> = I <sub>B2</sub> = -0.5A		500		nS
Fall Time	t <sub>f</sub>			100		nS

\* Pulse Test: PW ≤ 300μS, Duty Cycle ≤ 2%

T-37-17

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