

# MJD44H11 MJD45H11

# COMPLEMENTARY SILICON PNP TRANSISTORS

- SGS-THOMSON PREFERRED SALESTYPES
- LOW COLLECTOR-EMITTER SATURATION VOLTAGE
- FAST SWITCHING SPEED

### APPLICATIONS

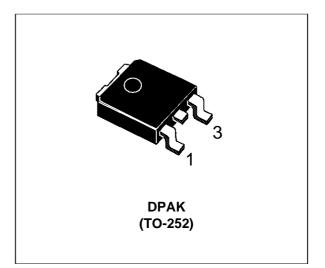
- GENERAL PURPOSE SWITCHING
- GENERAL PURPOSE AMPLIFIER

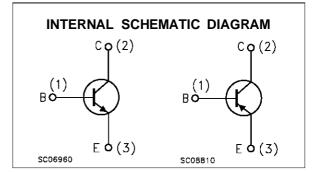
#### DESCRIPTION

The MJD44H11 is a silicon multiepitaxial planar NPN transistors mounted in DPAK plastic package.

It is inteded for various switching and general purpose applications.

The complementary PNP type is MJD45H11.





#### **ABSOLUTE MAXIMUM RATINGS**

	Value	Unit
IPN	MJD44H11	
PNP MJD4	MJD45H11	
	80	V
	5	V
	8	A
	16	A
	20	W
	-55 to 150	°C
	150	°C

## THERMAL DATA

## **ELECTRICAL CHARACTERISTICS** (T<sub>case</sub> = 25 °C unless otherwise specified)

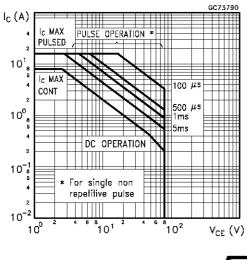
Symbol	Parameter	Test Conditions	Min.	Тур.	Max.	Unit
$V_{CEO(sus)^*}$	Collector-Emitter Sustaining Voltage	I <sub>C</sub> = 30 mA	80			V
I <sub>CES</sub>	Collector Cut-off Current	$V_{CB} = rated V_{CEO} V_{BE} = 0$			10	μA
I <sub>EBO</sub>	Emitter Cut-off Current	$V_{EB} = 5V$			50	μA
V <sub>CE(sat)</sub> *	Collector-Emitter Saturation Voltage	$I_{\rm C} = 8 \ {\rm A}$ $I_{\rm B} = 0.4 \ {\rm A}$			1	V
V <sub>BE(sat)</sub> *	Base-Emitter Saturation Voltage	I <sub>C</sub> = 8 A I <sub>B</sub> = 0.8 A			1.5	V
h <sub>FE</sub> *	DC Current Gain		60 40			

\* Pulsed: Pulse duration = 300  $\mu$ s, duty cycle  $\leq$  2 %

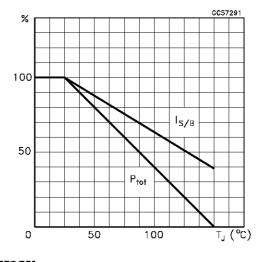
 $\ast$  For PNP types the values are intented negative.

## Safe Operating Area

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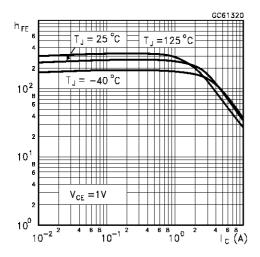


Derating Curves

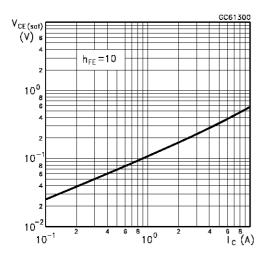




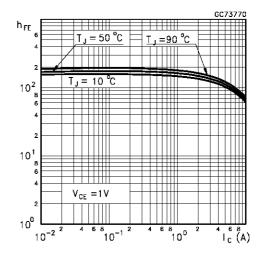
## DC Current Gain (NPN type)



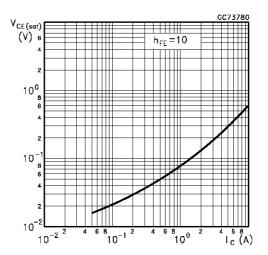
Collector-Emitter Saturation Voltage (NPN type)



DC Current Gain (PNP type)



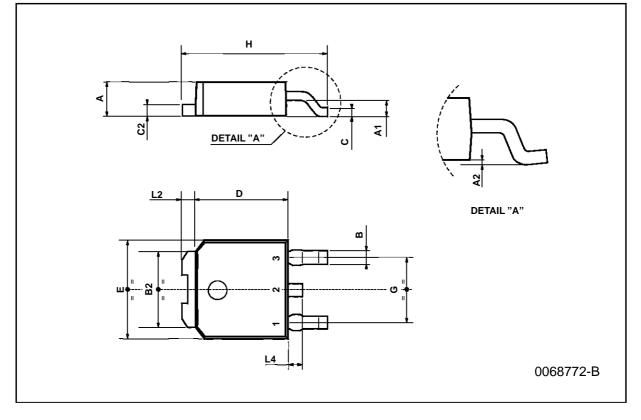
Collector-Emitter Saturation Voltage (PNP type)





DIM.		mm			inch		
Divi.	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.	
А	2.2		2.4	0.086		0.094	
A1	0.9		1.1	0.035		0.043	
A2	0.03		0.23	0.001		0.009	
В	0.64		0.9	0.025		0.035	
B2	5.2		5.4	0.204		0.212	
С	0.45		0.6	0.017		0.023	
C2	0.48		0.6	0.019		0.023	
D	6		6.2	0.236		0.244	
E	6.4		6.6	0.252		0.260	
G	4.4		4.6	0.173		0.181	
Н	9.35		10.1	0.368		0.397	
L2		0.8			0.031		
L4	0.6		1	0.023		0.039	





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