

MJD340 MJD350

COMPLEMENTARY SILICON POWER TRANSISTORS

- STMicroelectronics PREFERRED SALESTYPES
- COMPLEMENTARY PNP NPN DEVICES
- MEDIUM VOLTAGE CAPABILITY
- SURFACE-MOUNTING TO-252 (DPAK) POWER PACKAGE IN TAPE & REEL (SUFFIX "T4")
- ELECTRICAL SIMILAR TO MJE340 AND MJE350

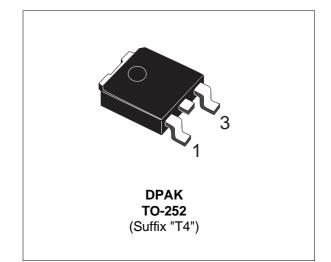
APPLICATIONS

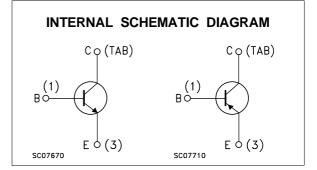
- SOLENOID/RELAY DRIVERS
- GENERAL PURPOSE SWITCHING AND AMPLIFIER

DESCRIPTION

The MJD340 and MJD350 form complementary NPN - PNP pairs.

They are manufactured using Medium Voltage Epitaxial-Planar technology, resulting in a rugged high performance cost-effective transistor.





ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit	
	NPN			
		PNP	MJD350	
Vсво	Collector-Base Voltage (IE = 0)		300	V
V _{CEO}	Collector-Emitter Voltage $(I_B = 0)$		300	V
Vebo	Emitter-Base Voltage (IC = 0)		3	V
Ι _C	Collector Current		0.5	Α
Ісм	Collector Peak Current (tp = 25 °C)		0.75	А
P _{tot}	Total Power Dissipation at $T_{case} \leq 25 \ ^{\circ}C$		15	W
T _{stg}	Storage Temperature		-65 to 150	°C
Tj	Max Operating Junction Temperature		150	°C

For PNP types voltage and current values are negative.

THERMAL DATA

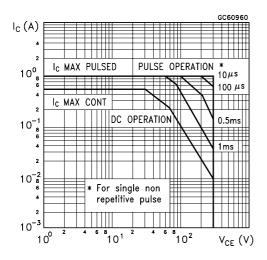
R _{thj-case}	Thermal Resistance Junction-case	Max	8.33	°C/W
R _{thj-amb}	Thermal Resistance Junction-ambient	Max	100	°C/W

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

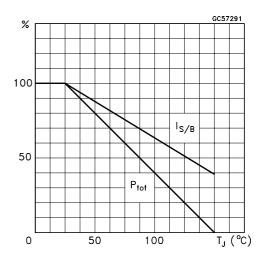
Symbol	Parameter	Test Conditions	Min.	Тур.	Max.	Unit
Ісво	Collector Cut-off Current (v _{BE} = 0)	V _{CB} = 300 V			0.1	mA
I _{EBO}	Emitter Cut-off Current $(I_C = 0)$	V _{EB} = 3 V			0.1	mA
$V_{CEO(sus)^*}$	Collector-Emitter Sustaining Voltage (I _B = 0)	Ic = 1 mA	300			V
h _{FE} *	DC Current Gain	$I_{C} = 50 \text{ mA}$ $V_{CE} = 10 \text{ V}$	30		240	

* Pulsed: Pulse duration = 300 μs , duty cycle \leq 2 % For PNP type voltage and current values are negative.

Safe Operating Area

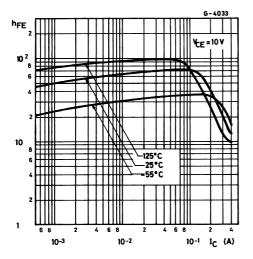


Derating Curve

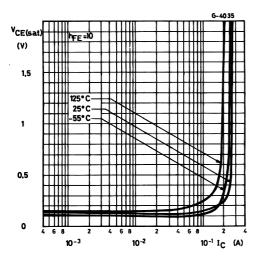


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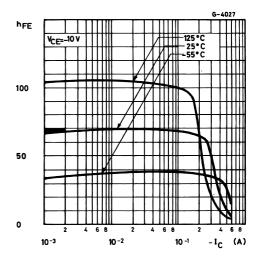
DC Current Gain (NPN type)



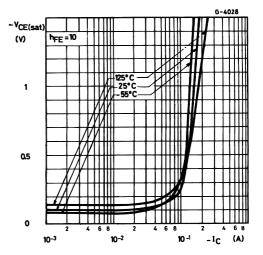
Collector Emitter Saturation Voltage (NPN type)



DC Current Gain (PNP type)

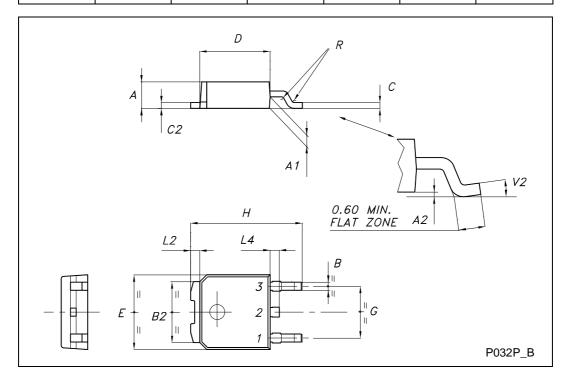


Collector Emitter Saturation Voltage (PNP type)



DIM.		mm			inch	
2	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
А	2.20		2.40	0.087		0.094
A1	0.90		1.10	0.035		0.043
A2	0.03		0.23	0.001		0.009
В	0.64		0.90	0.025		0.035
B2	5.20		5.40	0.204		0.213
С	0.45		0.60	0.018		0.024
C2	0.48		0.60	0.019		0.024
D	6.00		6.20	0.236		0.244
E	6.40		6.60	0.252		0.260
G	4.40		4.60	0.173		0.181
Н	9.35		10.10	0.368		0.398
L2		0.8			0.031	
L4	0.60		1.00	0.024		0.039

TO-252 (DPAK) MECHANICAL DATA



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