

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

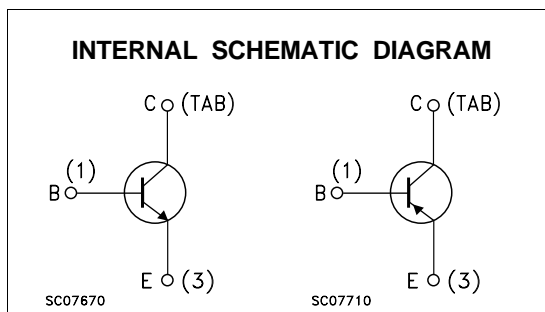
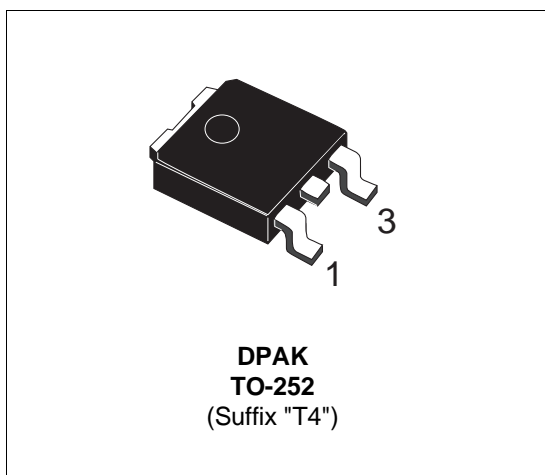
APPLICATIONS

- 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	MJD340	
		PNP	MJD350	
V _{CBO}	Collector-Base Voltage (I _E = 0)		300	V
V _{CEO}	Collector-Emitter Voltage (I _B = 0)		300	V
V _{EBO}	Emitter-Base Voltage (I _C = 0)		3	V
I _C	Collector Current		0.5	A
I _{CM}	Collector Peak Current (t _p = 25 °C)		0.75	A
P _{tot}	Total Power Dissipation at T _{case} ≤ 25 °C		15	W
T _{stg}	Storage Temperature		-65 to 150	°C
T _j	Max Operating Junction Temperature		150	°C

For PNP types voltage and current values are negative.

MJD340 / MJD350

THERMAL DATA

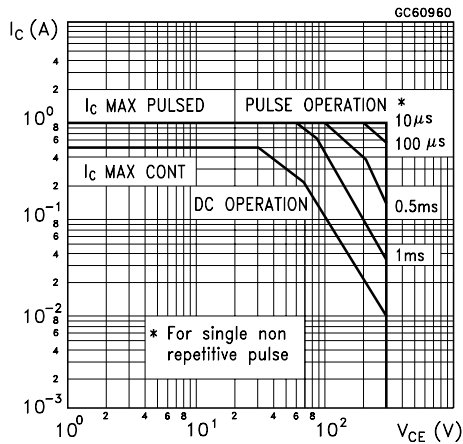
$R_{thj-case}$	Thermal Resistance Junction-case	Max	8.33	$^{\circ}C/W$
$R_{thj-amb}$	Thermal Resistance Junction-ambient	Max	100	$^{\circ}C/W$

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

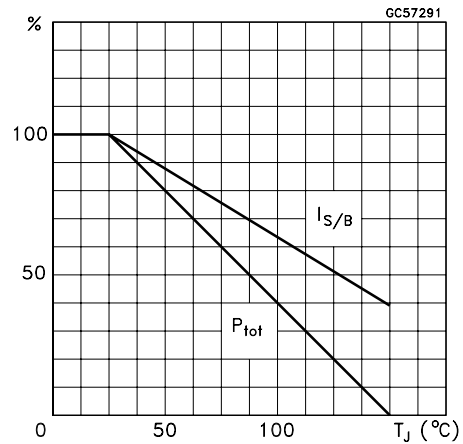
Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{CBO}	Collector Cut-off Current ($V_{BE} = 0$)	$V_{CB} = 300 V$			0.1	mA
I_{EBO}	Emitter Cut-off Current ($I_C = 0$)	$V_{EB} = 3 V$			0.1	mA
$V_{CEO(sus)*}$	Collector-Emitter Sustaining Voltage ($I_B = 0$)	$I_C = 1 mA$	300			V
h_{FE*}	DC Current Gain	$I_C = 50 mA$ $V_{CE} = 10 V$	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



TO-252 (DPAK) MECHANICAL DATA

DIM.	mm			inch		
	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
A	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
B	0.64		0.90	0.025		0.035
B2	5.20		5.40	0.204		0.213
C	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
H	9.35		10.10	0.368		0.398
L2		0.8			0.031	
L4	0.60		1.00	0.024		0.039
V2	0°		8°	0°		0°

