



SILICON NPN TRANSISTOR

- STMicroelectronics PREFERRED SALESTYPE
- NPN TRANSISTOR

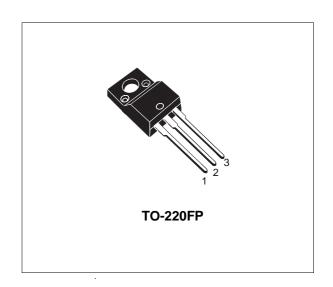
APPLICATIONS

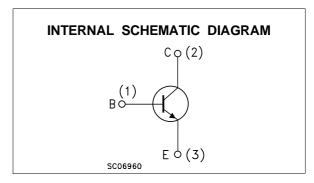
 HORIZONTAL DEFLECTION FOR COLOUR TV

DESCRIPTION

The device is a silicon epitaxial planar NPN transistor in TO-220FP fully isolated package.

It is a fast switching, high voltage device for use in horizontal deflection output stages of medium and small screens MTV receivers with 110° CRT as monochrome computer terminals.





ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Value	Unit
V _{CBO}	Collector-Base Voltage (I _E = 0)	330	V
V _{CEV}	Collector-Emitter Voltage (V _{BE} = -1.5 V)	330	V
Vceo	Collector-Emitter Voltage (I _B = 0)	150	V
V_{EBO}	Emitter-Base Voltage (I _C = 0)	6	V
Ic	Collector Current	7	A
I _{CM}	Collector Peak Current (repetitive)	10	Α
I _{CM}	Collector Peak Current (t _p = 10 ms)	15	Α
I_{B}	Base Current	4	Α
P _{tot}	Total Dissipation at T _c ≤ 25 °C	34	W
T_{stg}	Storage Temperature	-65 to 150	°C
Tj	Max. Operating Junction Temperature	150	°C

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THERMAL DATA

R _{thj-case}	Thermal Resistance Junction-case	Max	3.67	°C/W
$R_{thj-amb}$	Thermal Resistance Junction-ambient	Max	70	°C/W

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

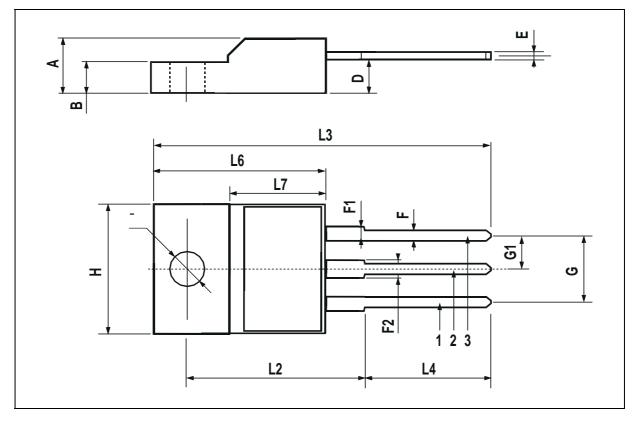
Symbol	Parameter	Test Conditions		Min.	Тур.	Max.	Unit
I _{CES}	Collector Cut-off Current (V _{BE} = 0)	V _{CE} =330 V V _{CE} =200 V V _{CE} =200 V	T _{case} = 100°C			5 100 1	mΑ μΑ mΑ
I _{EBO}	Emitter Cut-off Current (I _C = 0)	V _{EB} = 6 V				1	mA
V _{CE(sat)} *	Collector-emitter Saturation Voltage	I _C = 5 A	$I_B = 0.5 A$			1	V
V _{BE(sat)} *	Base-emitter Saturation Voltage	I _C = 5 A	$I_B = 0.5 A$			1.2	V
f⊤	Transition-Frequency	$I_C = 0.5 A$	$V_{CE} = 10 \text{ V}$	10			MHz
t _{off}	RESISTIVE LOAD Turn-off Time	I _C = 5 A	I _{Bend} = 0.5 A			0.75	μs
I _{s/b}	Second Breakdown Collector Current	V _{CE} = 40 V	t = 10 ms		4		Α

^{*} Pulsed: Pulse duration = 300 μs, duty cycle 1.5 %.

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TO-220FP MECHANICAL DATA

DIM.		mm			inch	
DIW.	MIN.	TYP.	MAX.	MIN.	TYP.	MAX.
Α	4.4		4.6	0.173		0.181
В	2.5		2.7	0.098		0.106
D	2.5		2.75	0.098		0.108
E	0.45		0.7	0.017		0.027
F	0.75		1	0.030		0.039
F1	1.15		1.7	0.045		0.067
F2	1.15		1.7	0.045		0.067
G	4.95		5.2	0.195		0.204
G1	2.4		2.7	0.094		0.106
Н	10		10.4	0.393		0.409
L2		16			0.630	
L3	28.6		30.6	1.126		1.204
L4	9.8		10.6	0.385		0.417
L6	15.9		16.4	0.626		0.645
L7	9		9.3	0.354		0.366
Ø	3		3.2	0.118		0.126



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