

**Silicon Diffused Power Transistor**

**BUT11APX**

**GENERAL DESCRIPTION**

Enhanced performance, new generation, high-voltage, high-speed switching npn transistor in a plastic full-pack envelope intended for use in horizontal deflection circuits of colour television receivers. Features exceptional tolerance to base drive and collector current load variations resulting in a very low worst case dissipation.

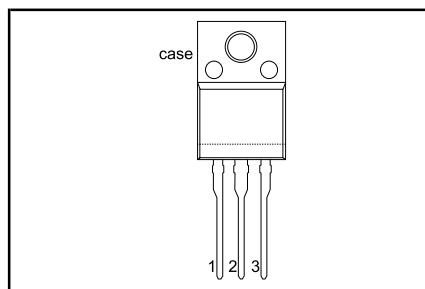
**QUICK REFERENCE DATA**

SYMBOL	PARAMETER	CONDITIONS	TYP.	MAX.	UNIT
$V_{CESM}$	Collector-emitter voltage peak value	$V_{BE} = 0\text{ V}$	-	1000	V
$V_{CBO}$	Collector-Base voltage (open emitter)		-	1000	V
$V_{CEO}$	Collector-emitter voltage (open base)		-	450	V
$I_C$	Collector current (DC)		-	5	A
$I_{CM}$	Collector current peak value		-	10	A
$P_{tot}$	Total power dissipation	$T_{hs} \leq 25\text{ °C}$	-	32	W
$V_{CESat}$	Collector-emitter saturation voltage		-	1.5	V
$I_{Csat}$	Collector saturation current		3.5	-	A
$t_f$	Fall time	$I_{Csat}=2.5\text{A}, I_{B1}=0.5\text{A}, I_{B2}=0.8\text{A}$	145	160	ns

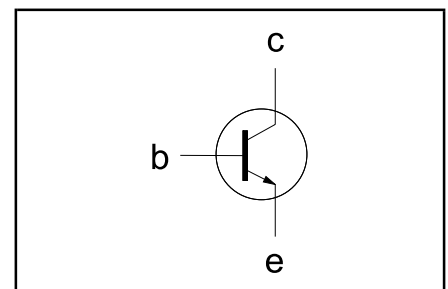
**PINNING - SOT186A**

PIN	DESCRIPTION
1	base
2	collector
3	emitter
case	isolated

**PIN CONFIGURATION**



**SYMBOL**



**LIMITING VALUES**

Limiting values in accordance with the Absolute Maximum Rating System (IEC 134)

SYMBOL	PARAMETER	CONDITIONS	MIN.	MAX.	UNIT
$V_{CESM}$	Collector to emitter voltage	$V_{BE} = 0\text{ V}$	-	1000	V
$V_{CEO}$	Collector to emitter voltage (open base)		-	450	V
$V_{CBO}$	Collector to base voltage (open emitter)		-	1000	V
$I_C$	Collector current (DC)		-	5	A
$I_{CM}$	Collector current peak value		-	10	A
$I_B$	Base current (DC)		-	2	A
$I_{BM}$	Base current peak value		-	4	A
$P_{tot}$	Total power dissipation	$T_{hs} \leq 25\text{ °C}$	-	32	W
$T_{stg}$	Storage temperature		-65	150	°C
$T_j$	Junction temperature		-	150	°C

**THERMAL RESISTANCES**

SYMBOL	PARAMETER	CONDITIONS	TYP.	MAX.	UNIT
$R_{th\ j-hs}$	Junction to heatsink	with heatsink compound	-	3.95	K/W
$R_{th\ j-a}$	Junction to ambient	in free air	55	-	K/W