



PNP Silicon Planar High Voltage Transistor

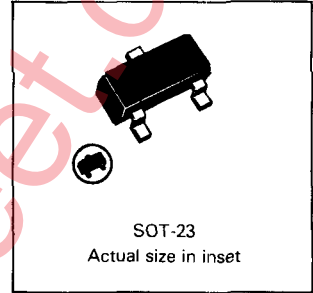
DESCRIPTION

This plastic encapsulated transistor is designed for any application requiring high voltage capability at relatively low collector currents.

Complementary to the BSS64.

Encapsulated in the popular SOT-23 package the device is designed specifically for use in thin and thick film hybrid circuits in both industrial and commercial applications.

The Ferranti SOT-23 package is formed by transfer moulding a SILICONE plastic specially selected to provide a rugged one piece encapsulation resistant to severe environments.



ABSOLUTE MAXIMUM RATINGS

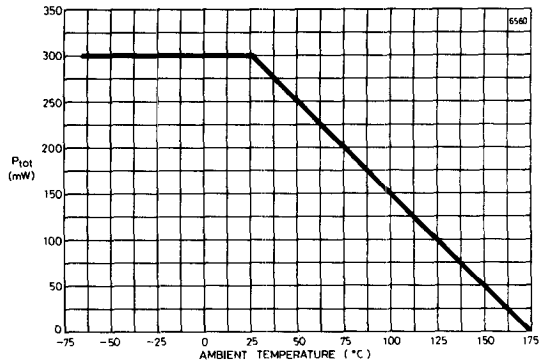
Parameter	Symbol	Value	Unit
Collector-Base Voltage	V_{CBO}	- 110	V
Collector-Emitter Voltage	V_{CEO}	- 100	V
Emitter-Base Voltage	V_{EBO}	- 6	V
Collector Current	I_C	100	mA
Power Dissipation (at $T_{amb} = 25^{\circ}C$)*	P_{tot}	300	mW
Operating and Storage Temperature Range		- 65 to + 175	$^{\circ}C$

*Maximum power dissipation is calculated assuming that the device is mounted on a ceramic substrate measuring $10 \times 8 \times 0.6$ mm

BSS63

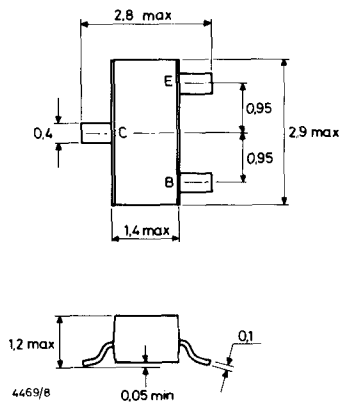
CHARACTERISTICS (at 25°C ambient temperature unless otherwise stated).

Parameter	Symbol	Min.	Typ.	Max.	Unit	Conditions
Collector-base breakdown voltage	$V_{(BR)CBO}$	-110	—	—	V	$I_C = 10\mu A$
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	-100	—	—	V	$I_C = 100\mu A$
Emitter-base breakdown voltage	$V_{(BR)EBO}$	-6	—	—	V	$I_E = 10\mu A$
Collector cut-off currents	I_{CBO}	—	—	100	nA	$V_{CB} = 90V, I_E = 0$
		—	—	50	μA	$V_{CB} = 90V, I_E = 0$ $T_J = 150^\circ C$
	I_{EBO}	—	—	200	nA	$V_{EB} = 6V, I_C = 0$
Static forward current transfer ratio	h_{FE}	30	—	—		$I_C = 10mA, V_{CE} = 1V$
		30	—	—		$I_C = 25mA, V_{CE} = 1V$
Collector-emitter saturation voltage	$V_{CE(sat)}$	—	—	250	mV	$I_C = 25mA, I_B = 2.5mA$
Base-emitter saturation voltage	$V_{BE(sat)}$	—	—	900	mV	$I_C = 25mA, I_B = 2.5mA$
Output capacitance	C_{obo}	—	3	—	pF	$V_{CB} = 10V, I_E = 0$ $f = 1MHz$
Transition frequency	f_T	50	85	—	MHz	$V_{CE} = 5V, I_C = 25mA$ $f = 35MHz$



DERATING CURVE

PACKAGE DETAILS



SOT-23

Dimensions in millimetres

These devices are also available with the base and emitter connections reversed. In this case, the suffix R after the type number is used. All other electrical and physical data remains unchanged.

Devices are identified by an alpha-numerical code stamped on the body of the device as follows:

BSS63 T3
 BSS63R T6

SOT-23 TRANSISTORS & DIODES

PRODUCT LIST AND DEVICE IDENTIFICATION

TRANSISTORS			TRANSISTORS		
Device Type	Standard marking	Reverse Joggle marking	Device Type	Standard marking	Reverse Joggle marking
BCV71	K7	K6	BFQ31	S2	S3
BCV72	K8	K9	BFQ31A	S4	S5
BCW29	C1	C4	BFS20	G1	G4
BCW30	C2	C5	BSS63	T3	T6
BCW31	D1	D4	BSS64	U3	U6
BCW32	D2	D5	BSS65	L1	L5
BCW33	D3	D6	BSS66	M6	M8
BCW60A	AA	—	BSS67	M7	M9
BCW60B	AB	—	BSS69	L2	L6
BCW60C	AC	AR	BSS70	L3	L7
BCW60D	AD	—	BSS79B	CE	—
BCW61A	BA	CA	BSS79C	CF	—
BCW61B	BB	CB	BSS82B	CL	—
BCW61C	BC	CC	BSS82C	CM	—
BCW61D	BD	CD	BSV52	B2	B4
BCW65A	EA	—	FMMT-A05	1H	—
BCW65B	EB	—	FMMT-A06	1G	—
BCW65C	EC	—	FMMT-A12	3W	—
BCW66F	EF	7P	FMMT-A13	1M	—
BCW66G	EG	5T	FMMT-A14	1N	—
BCW66H	EH	—	FMMT-A20	1C	—
BCW67A	DA	—	FMMT-A42	3E	7E
BCW67B	DB	—	FMMT-A43	1E	5E
BCW67C	DC	—	FMMT-A55	2H	—
BCW68F	DF	—	FMMT-A56	2G	—
BCW68G	DG	6T	FMMT-A70	2C	—
BCW68H	DH	—	FMMT-A92	4E	8E
BCW69	H1	H4	FMMT-A93	2E	6E
BCW70	H2	H5	FMMT918	3B	—
BCW71	K1	K4	FMMT2222	1B	2P
BCW72	K2	K5	FMMT2222A	1P	3P
BCW89	H3	H6	FMMT2369	1J	—
BCX17	T1	T4	FMMT2369A	P5	—
BCX18	T2	T5	FMMT2484	4G	—
BCX19	U1	U4	FMMT2907	2B	—
BCX20	U2	U5	FMMT2907A	2F	5P
BCX70G	AG	—	FMMT3903	1W	—
BCX70H	AH	—	FMMT3904	1A	—
BCX70J	AJ	AX	FMMT3905	2W	—
BCX70K	AK	P9	FMMT3906	2A	—
BCX71G	BG	CG	FMMT4124	ZC	—
BCX71H	BH	6P	FMMT4125	ZD	—
BCX71J	BJ	J8	FMMT5087	2M	3M
BCX71K	BK	CK	HT2	2T	—
			HT3	3T	—