DESCRIPTION

The 2SB798-DL and 2SB798-DK are available in the SOT-89 package.

APPLICATIONS

- Switching and amplifying in various electrical and electronic circuits.

ORDERING INFORMATION

Package Type	Part Number
SOT-89	2SB798-DL
	2SB798-DK
SPQ	1,000pcs/Reel
AiT provides all RoHS Compliant Products	

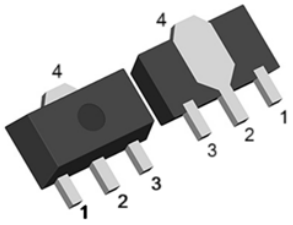
h_{FE} CLASSIFICATION

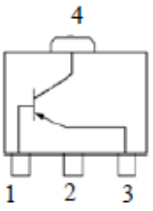
Rank	Range
2SB798-DL	135 ~ 270
2SB798-DK	200 ~ 400

FEATURE

- Low Collector Saturation Voltage:
  $V_{CE(SAT)}$ <-0.5V (I_C=-800mA, I_B=-80mA)
- Complements to NPN type 2SD999

PIN DESCRIPTION





SOT-89

PIN#	DESCRIPTION
1	Base
2,4	Collector
3	Emitter

ABSOLUTE MAXIMUM RATINGS

T_A = 25°C, unless otherwise specified.

V_{CBO}, Collector-Base Voltage	-30 V
V_{CEO}, Collector-Emitter Voltage	-25 V
V_{EBO}, Emitter-Base Voltage	-6 V
I_C, Collector Current-Continuous	-1.0 A
P_{tot}, Total power dissipation (TA = 25 °C) (1)	-1 W
T_J, Junction Temperature	150 °C
T_{stg}, Storage Temperature	-55 ~ +150 °C

(1) Mounted on printed circuit board.

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

ELECTRICAL CHARACTERISTICS

T_A=25℃ unless otherwise specified.

Parameter	Symbols	Conditions		Min.	Typ.	Max.	Unit
Collector-Emitter Breakdown Voltage	$V_{(BR)CEO}$	I_C = -2 mA, I_B = 0		-25	-	-	V
Collector-Base Breakdown Voltage	$V_{(BR)CBO}$	I_C = -100 μA, I_E = 0		-30	-	-	V
Emitter-Base Breakdown Voltage	$V_{(BR)EBO}$	I_E = -100 μA, I_C = 0		-6	-	-	V
Collector Cutoff Current	I_{CBO}	V_{CB} = -35 V, I_E = 0		-	-	-100	nA
DC Current Gain	h_{FE}	V_{CE} = -1 V, I_C = -100 mA	DL	135	-	270	-
			DK	200	-	400	
Collector-Emitter Saturation Voltage	V_{CE}(sat)	I_C = -800 mA, I_B = -80 mA,		-	-	-0.5	V
Transition Frequency	f_T	V_{CE} = 10 V, I_E = 50 mA f = 100 MHz		200	-	-	MHz

TYPICAL CHARACTERISTICS

Fig 1. Collector Dissipation vs. Ambient Temperature

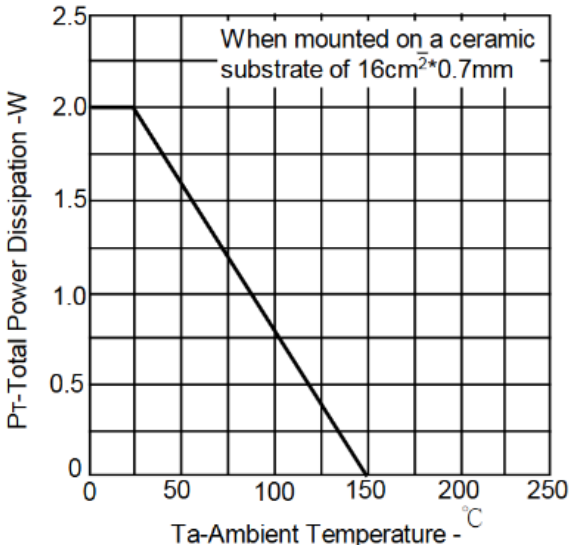


Fig 2. Collector Current vs. Base to Emitter Voltage

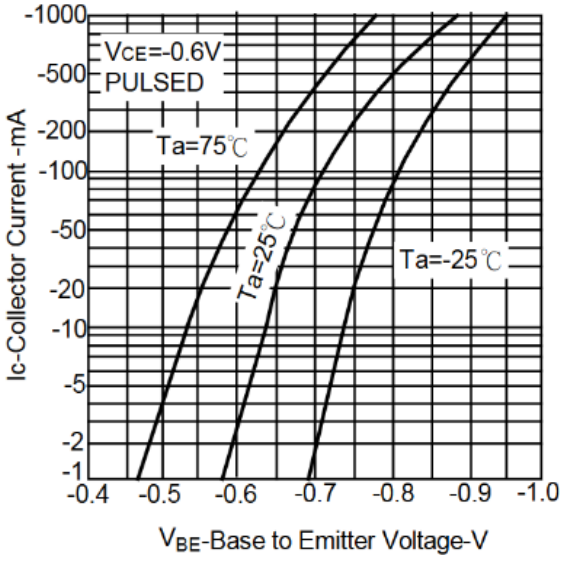


Fig 3. Collector Current vs.
Collector to Emitter Voltage

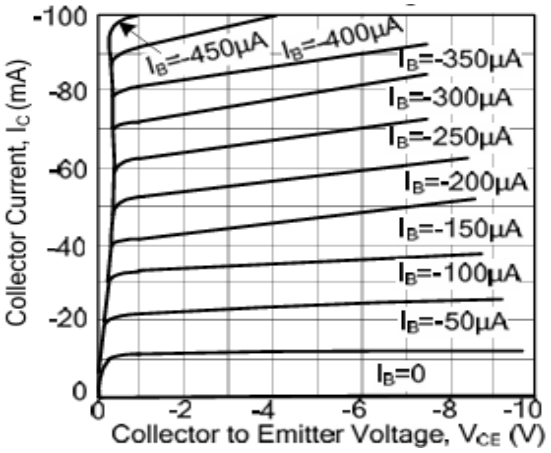


Fig 4. Collector Current vs.
Collector to Emitter Voltage

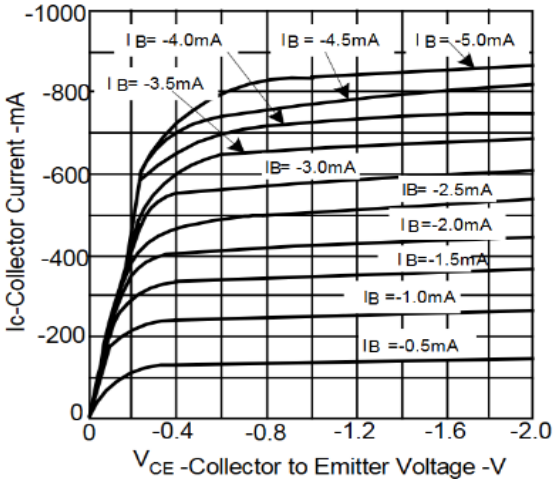


Fig 5. DC Current Gain vs. Collector Current

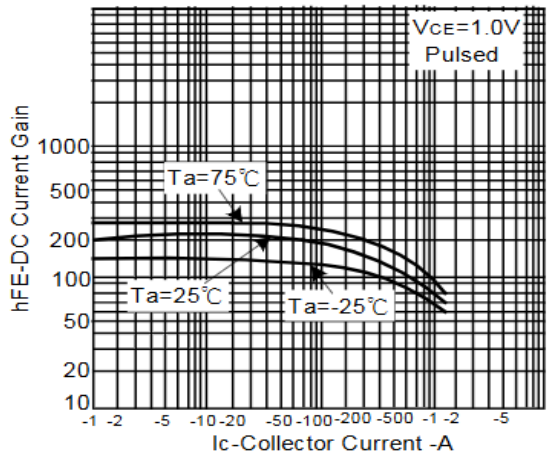


Fig 6. Collector and Base Saturation Voltage vs. Collector Current

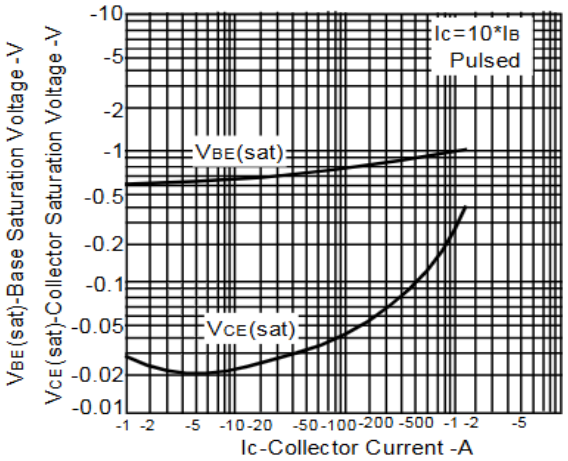


Fig 7. Gain Bandwidth Product vs. Emitter Current

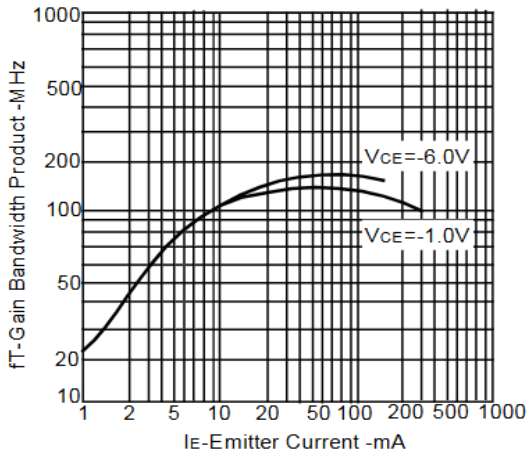
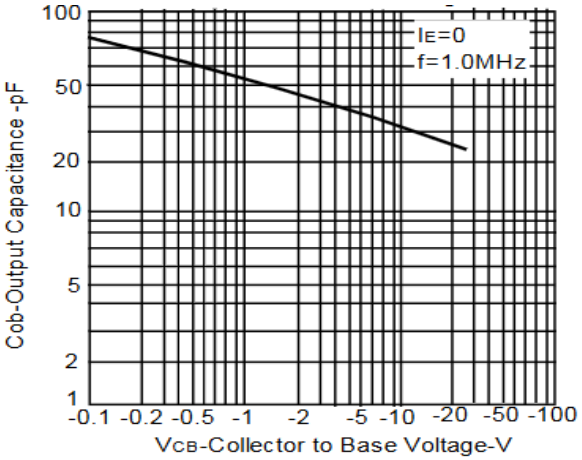
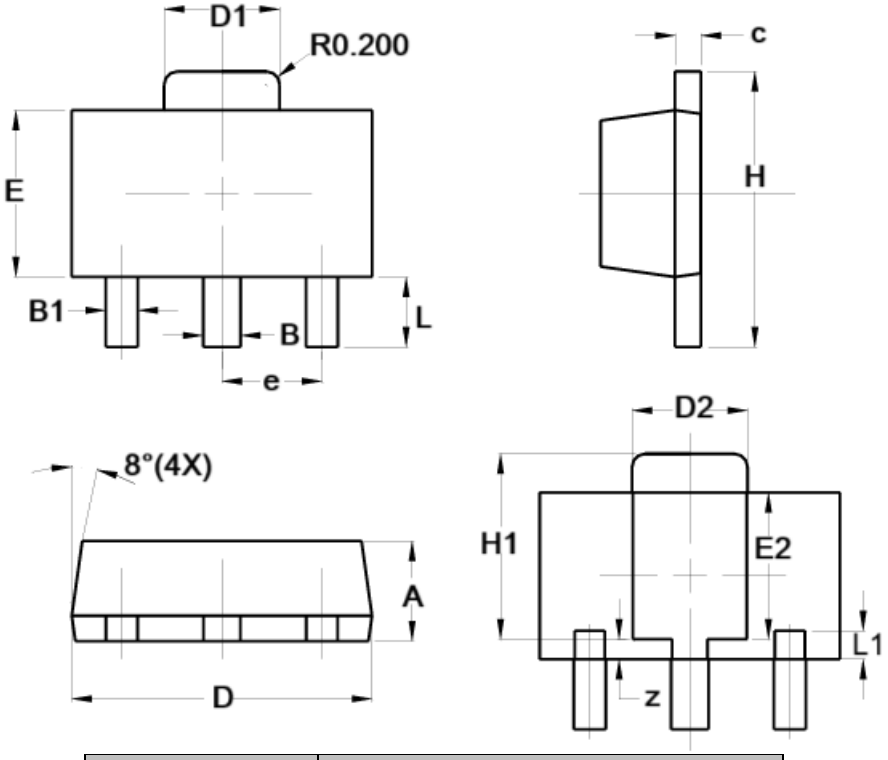


Fig 8. Output Capacitance vs.
Collector to Base Voltage



PACKAGE INFORMATION

Dimension in SOT-89 (Unit: mm)



Symbol	Millimeter	
	Min.	Max.
A	1.400	1.600
B	0.500	0.620
B1	0.420	0.540
c	0.350	0.430
D	4.440	4.600
D1	1.620	1.830
D2	1.610	1.810
E	2.400	2.600
E2	2.050	2.350
e	1.500 TYP.	
H	3.950	4.250
H1	2.630	2.930
L	0.900	1.200
L1	0.327	0.527
z	0.200	0.400

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