DESCRIPTION

The PBSS4350Z is available in SOT-223 package.

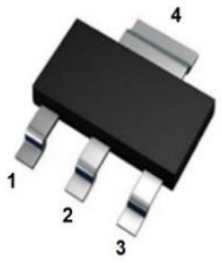
FEATURE

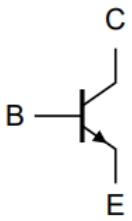
- Low collector-emitter saturation voltage
- High collector current capability: IC and ICM
- High collector current gain (hFE) at high IC
- Higher efficiency leading to less heat generation

ORDERING INFORMATION

Package Type	Part Number
SOT-223	PBSS4350Z
Note	SPQ: 2,500pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION





PIN#	DESCRIPTION
1	BASE
2	COLLECTOR
3	EMITTER
4	COLLECTOR

ABSOLUTE MAXIMUM RATINGS

T_A = 25°C, unless otherwise noted.

V_{CEO}, Collector–Emitter Voltage	40V
V_{CBO}, Collector–Base Voltage	50V
V_{EBO}, Emitter–Base Voltage	6V
I_C, Collector Current — Continuous	3A
P_C, Collector Power Dissipation	0.5W
$R_{\theta JA}$, Thermal Resistance, Junction–to–Ambient	250℃/W
$R_{\theta JC}$, Thermal Resistance, Junction to Case	35℃/W
T_J, Junction Temperature Range	-55℃~+150℃
T_{STG}, Storage Temperature Range	-55℃~+150℃

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°C, unless otherwise noted.

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Collector–Base Breakdown Voltage	$V_{BR(CBO)}$	I_C =100μA,I_E =0	50	-	-	V
Collector–Emitter Breakdown Voltage	$V_{BR(CEO)}$	I_C =100mA,I_B =0	40	-	-	V
Emitter–Base Breakdown Voltage	$V_{BR(EBO)}$	I_E =100 μA, I_C =0	6	-	-	V
Collector Cutoff Current	I_{CBO}	V_{CB}=40V, I_E=0	-	-	1	μA
Collector Cutoff Current	I_{CEO}	V_{CE}=30V, I_B=0	-	-	10	μA
Emitter Cutoff Current	I_{EBO}	V_{EB}=6V, I_C=0	-	-	1	μA
DC Current Gain	h_{FE}	I_C =1A, V_{CE}=2V	60	-	400	
		I_C =100mA, V_{CE}=2V	32	-	-	
Collector–Emitter Saturation Voltage	$V_{CE(sat)}$	I_C=2A, I_B=0.2A	-	-	0.5	V
Base–Emitter Saturation Voltage	$V_{BE(sat)}$	I_C=2A, I_B=0.2A	-	-	1.5	V
Current-Gain-Bandwidth Product	f_T	V_{CE}=5.0V, I_C =0.1A, f=10MHz	50	-	-	MHz

ELECTRICAL CHARACTERISTICS CURVES

Fig 1. Static Characteristics

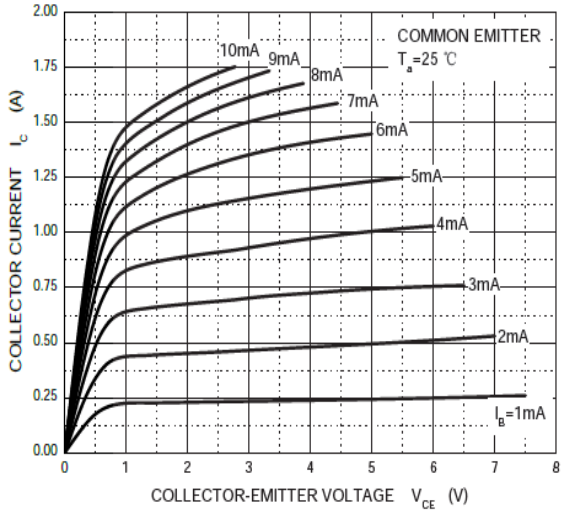


Fig 2. h_{FE} - I_C

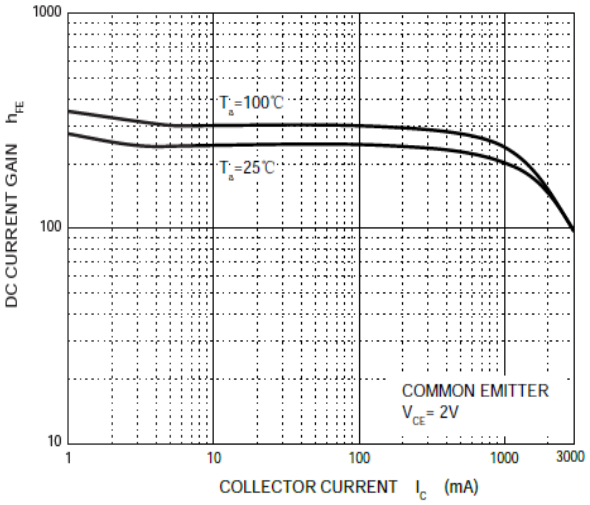


Fig 3. V_{CEsat} - I_C

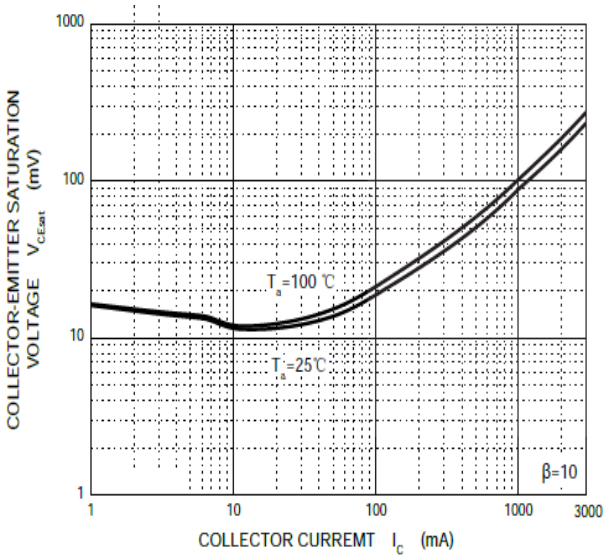


Fig 4. V_{BEsat} - I_C

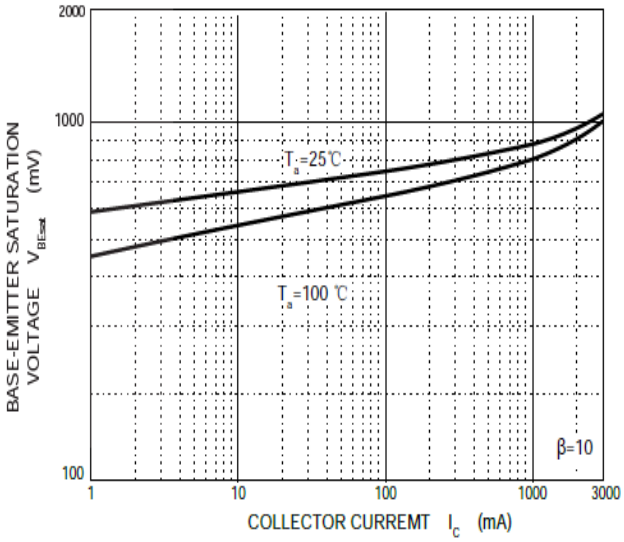


Fig 5. I_C - V_{BE}

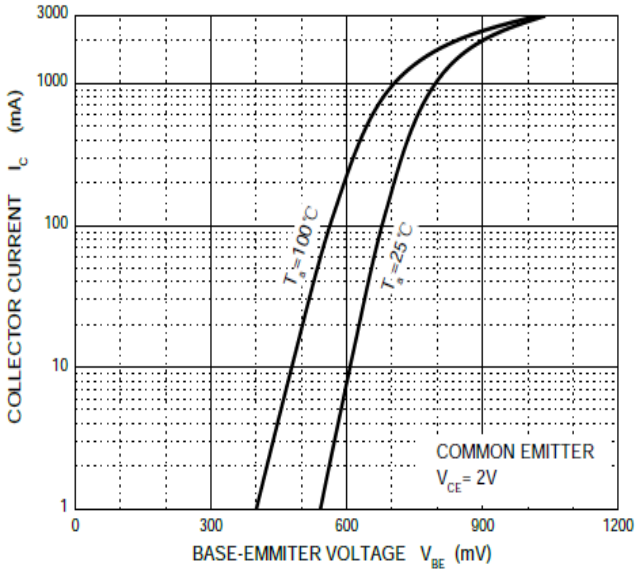


Fig 6. C_{ob}/C_{ib} - V_{CB}/ V_{EB}

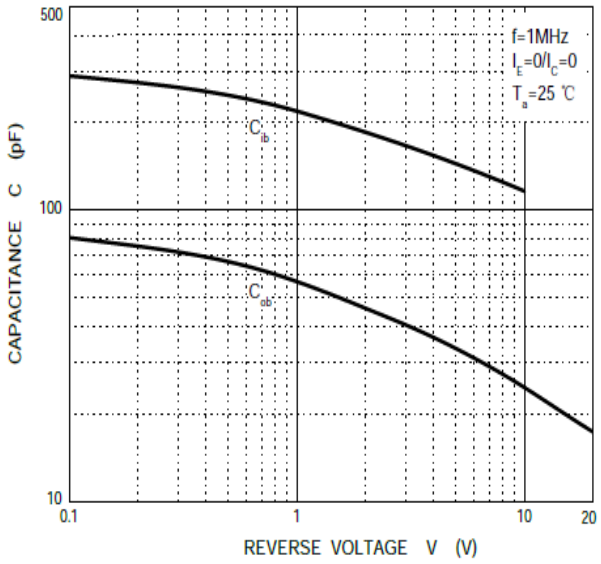
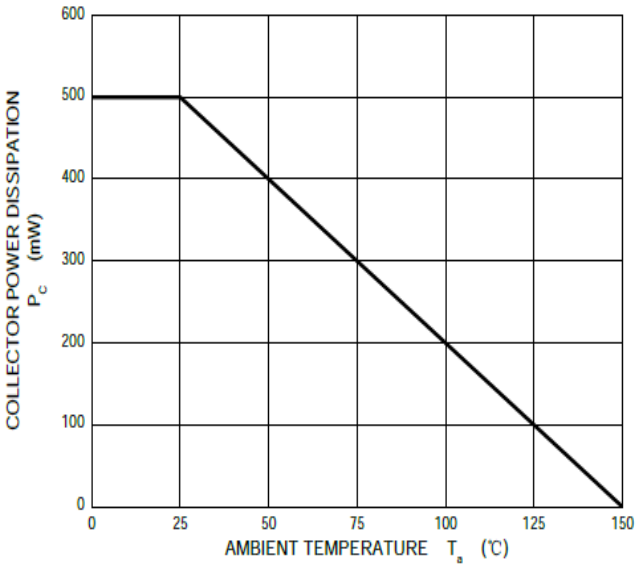
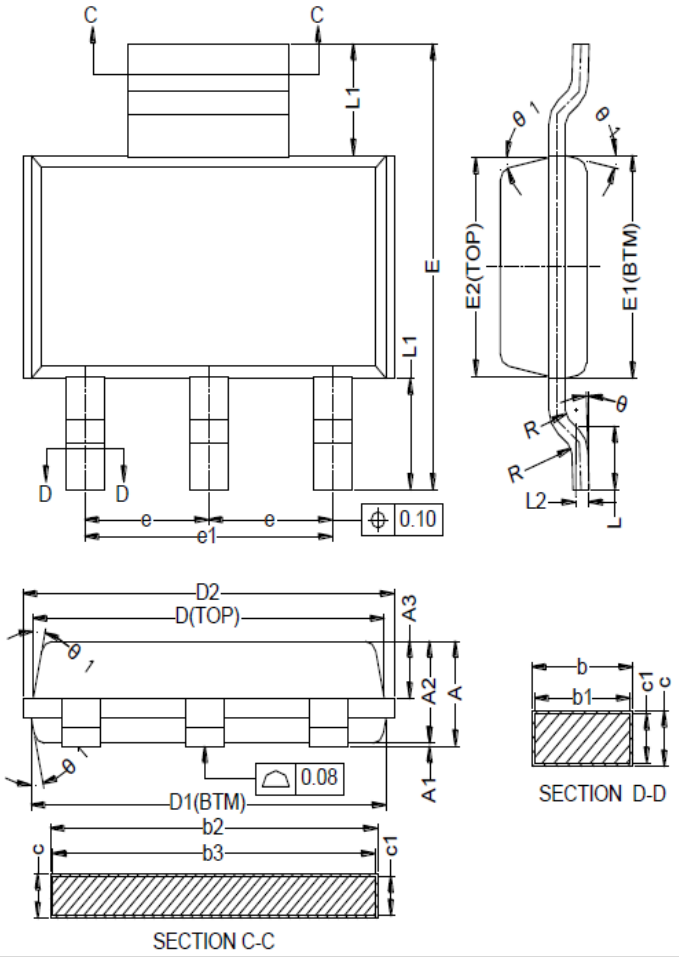


Fig 7. P_C -T_a



PACKAGE INFORMATION

Dimension in SOT-223 Package (Unit: mm)



Symbol	Min	Max	Symbol	Min	Max
A	-	1.80	E	6.80	7.20
A1	0.02	0.10	E1	3.40	3.60
A2	1.50	1.70	E2	3.33	3.53
A3	0.80	1.00	e	2.30BSC	
b	0.67	0.80	e1	4.60BSC	
b1	0.66	0.76	L	0.80	1.20
b2	2.96	3.09	L1	1.75REF	
b3	2.95	3.05	L2	0.25BSC	
c	0.30	0.35	R	0.10	-
c1	0.29	0.31	R1	0.10	-
D	6.48	6.58	θ	0°	8°
D1	6.55	6.65	θ1	10°	14°
D2	-	7.05			

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