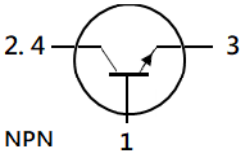
PBSS4232DD

NPN Low Vce(sat) Transistor

Voltage	32V	Current	2A

TO-252AA



Pin Assignment:
1. Base
2.4. Collector
3. Emitter

Features

- Silicon NPN epitaxial type
- Low Vce(sat) 0.8V(max)@Ic/Ib= 2A / 200mA
- High collector current capability
- Excellent DC current gain characteristics
- Lead free in comply with EU RoHS 2.0
- Green molding compound as per IEC61249 Standard

Mechanical Data

- Case: TO-252AA Package
- Terminals : Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.0104 ounces, 0.297 grams

Maximum Ratings and Thermal Characteristics (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Collector-Base Voltage	V_{CBO}	40	V
Collector-Emitter Voltage	V_{CEO}	32	V
Emitter-Base Voltage	V_{EBO}	5	V
Collector Current (DC)	I_C	2	A
Collector Current (Pulse)	I_{CP}	3	A
Base Current (DC)	I_B	0.2	A
Collector Power Dissipation	P_D	2.0	W
Operating Junction and Storage Temperature Range	T_J,T_{STG}	-55~150	°C
Thermal Resistance from Junction to Ambient (Note)	$R_{\theta JA}$	62.5	°C/W

Note: Mounted on FR4 with 2oz. PCB at 1 inch square copper pad.

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Electrical Characteristics (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
OFF Characteristics						
Collector-Emitter Breakdown Voltage	BV_{CEO}	I_C= 10mA, I_B= 0A	32	-	-	V
Collector-Base Breakdown Voltage	BV_{CBO}	I_C= 0.1mA, I_E= 0A	40	-	-	V
Emitter-Base Breakdown Voltage	BV_{EBO}	I_E= 0.1mA, I_C= 0A	5	-	-	V
Collector-Base Cutoff Current	I_{CBO}	V_{CB}= 40V, I_E= 0A	-	-	100	nA
Collector-Emitter Cutoff Current	I_{CES}	V_{CES}= 32V	-	-	100	nA
Emitter-Base Cutoff Current	I_{EBO}	V_{EB}= 5V	-	-	100	nA
ON characteristics						
DC Current Gain	h_{FE}	V_{CE}= 3V I_C= 100mA	180	-	-	-
		V_{CE}= 3V I_C= 500mA	180	-	390	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	I_C= 500mA, I_B= 50mA	-	100	250	mV
		I_C= 1A, I_B= 100mA	-	250	400	
		I_C= 2A, I_B= 200mA	-	350	800	
Base-Emitter Saturation voltage	$V_{BE(SAT)}$	I_C= 2A, I_B= 200mA	-	0.85	1.3	V
Base-Emitter ON voltage	$V_{BE(ON)}$	V_{CE}= 3V, I_C= 2A	-	0.95	1.2	V
Transition Frequency	f_T	I_C= 0.5A, V_{CE}= 5V f=100MHz	-	270	-	MHz
Collector Output Capacitance	C_{OB}	V_{CB}= 10V I_E= 0A, f=1MHz	-	14	-	pF

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TYPICAL CHARACTERISTIC CURVES

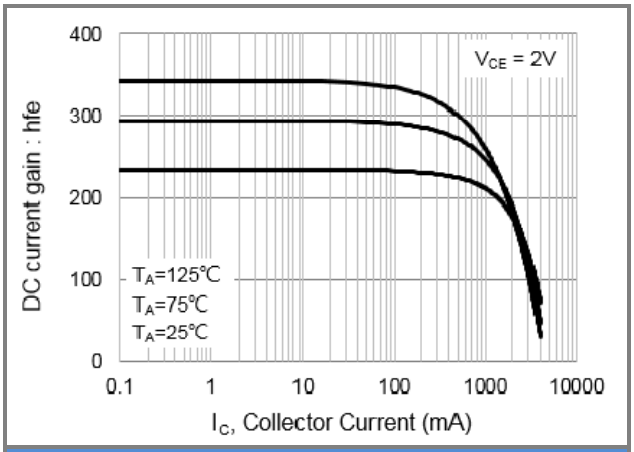

Fig.1 DC Current Gain

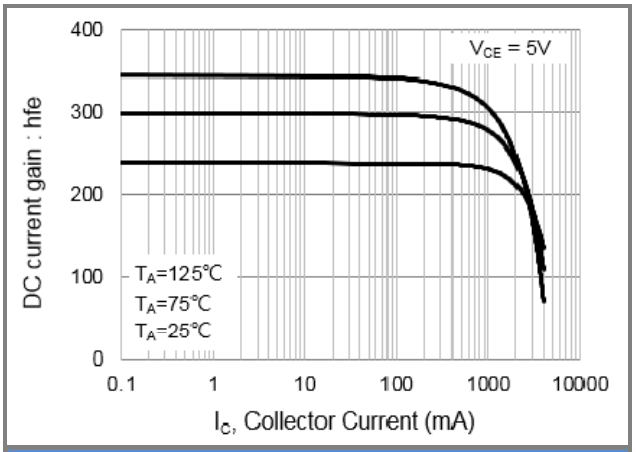

Fig.2 DC Current Gain

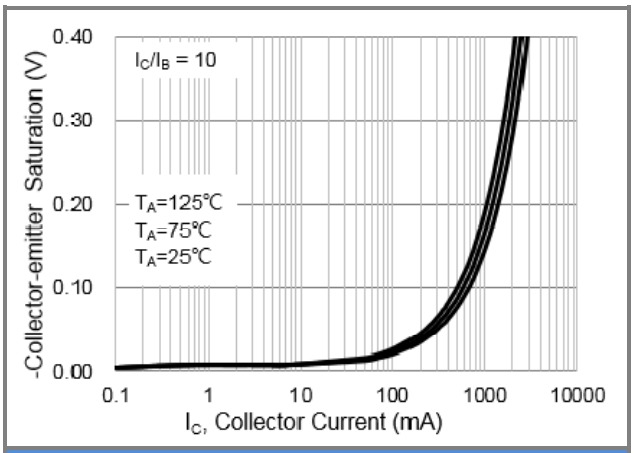

Fig.3 Collector-Emitter Saturation Voltage

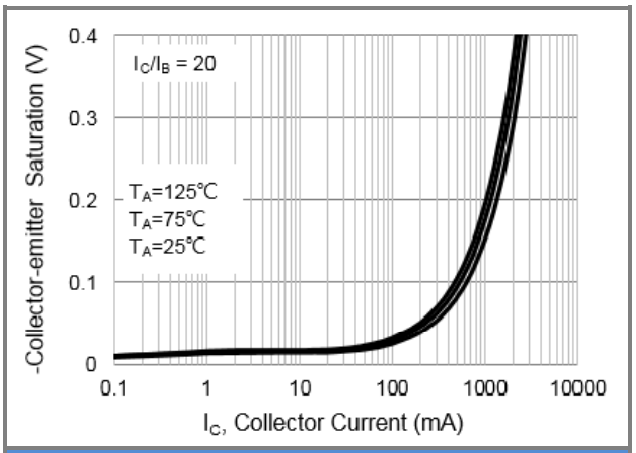

Fig.4 Collector-Emitter Saturation Voltage

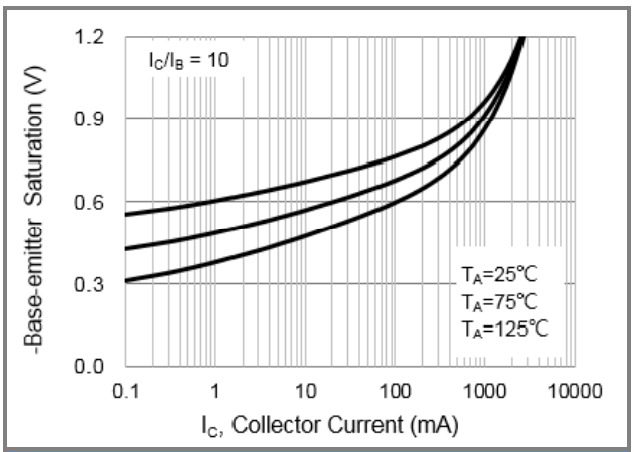

Fig.5 Base-Emitter Saturation Voltage

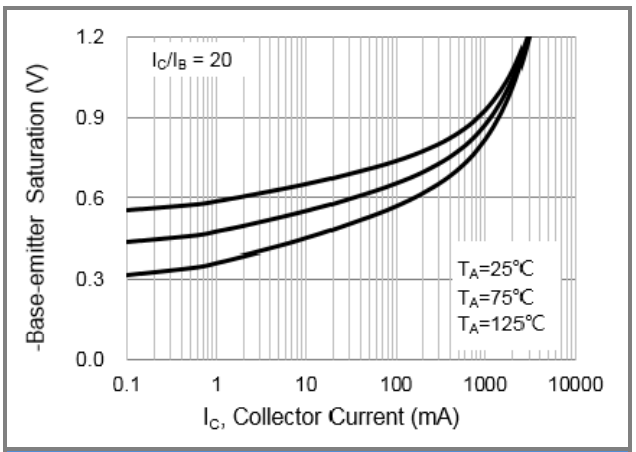

Fig.6 Base-Emitter Saturation Voltage

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TYPICAL CHARACTERISTIC CURVES

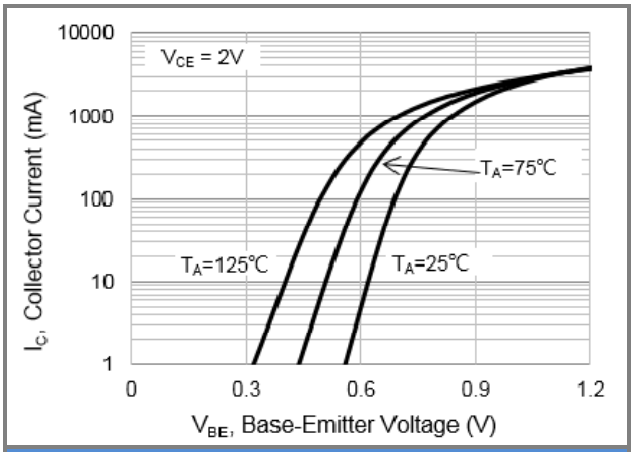


Fig.7 Base-Emitter Voltage

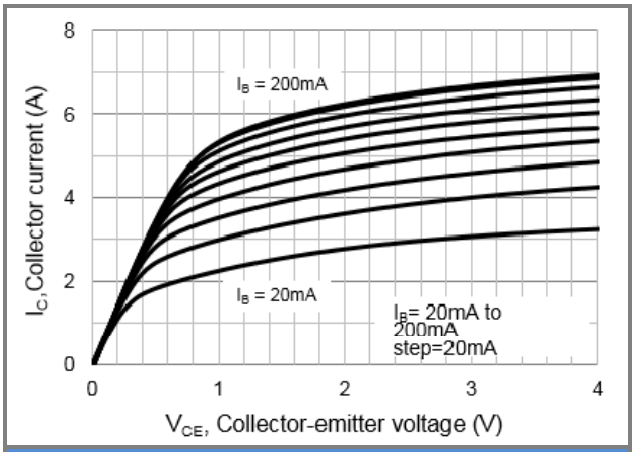


Fig.8 Collector Current

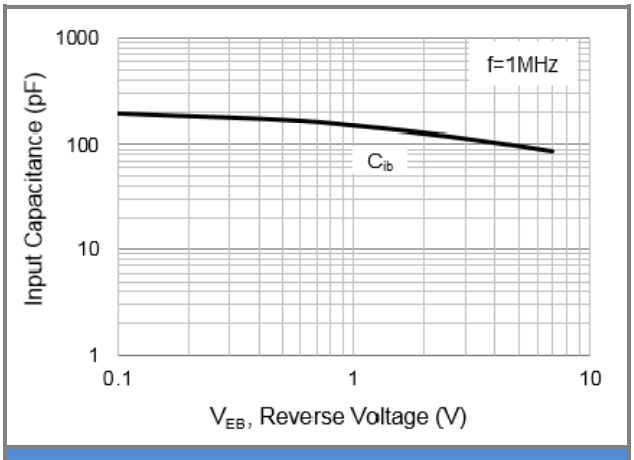


Fig.9 Input Capacitance

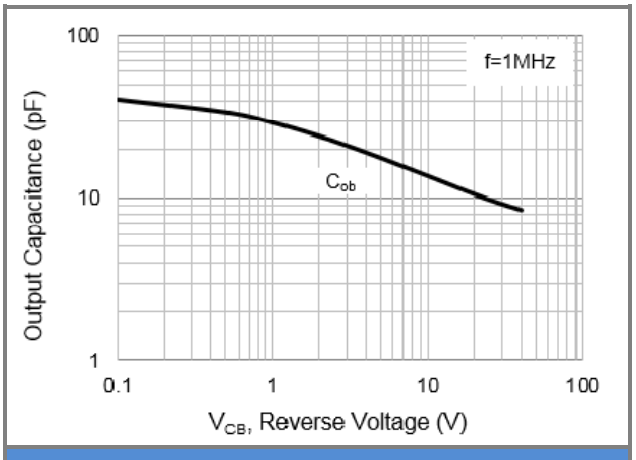


Fig.10 Output Capacitance

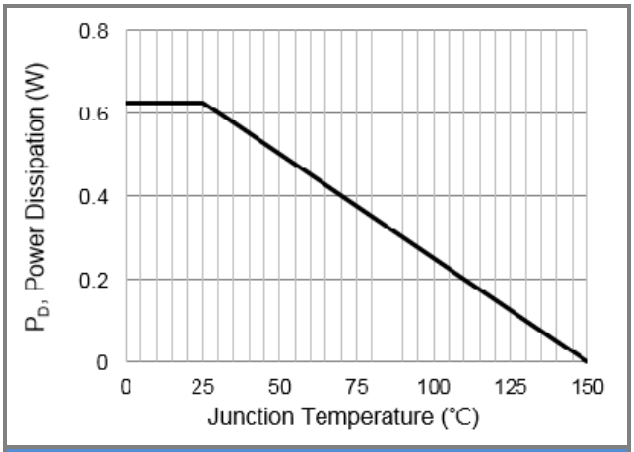


Fig.11 Power Derating Curve

PBSS4232DD

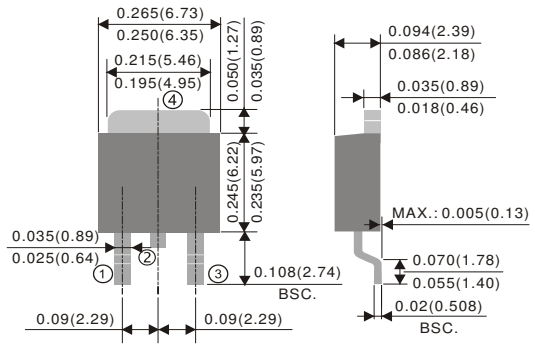
Part No Packing Code Version

Part No Packing Code	Package Type	Packing Type	Marking	Version
PBSS4232DD_L2_00001	TO-252AA	3,000 pcs / 13” reel	4232DD	Halogen free

Packaging Information & Mounting Pad Layout

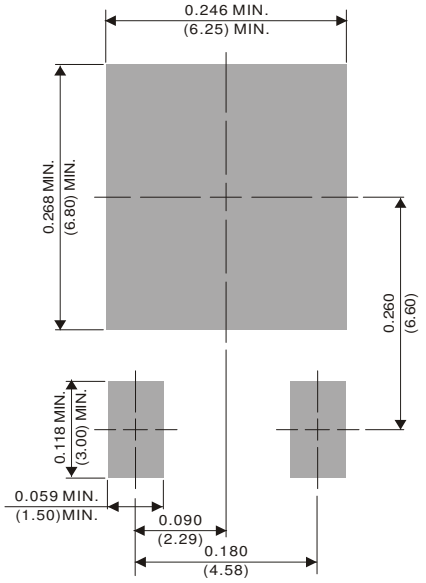
TO-252AA Dimension

Unit: inch(mm)



TO-252AA Pad Layout

Unit: inch(mm)



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