



PBSS4232DD

NPN Low Vce(sat) Transistor

Voltage

32V

Current

2A

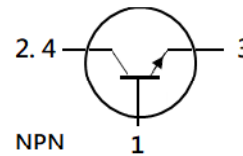
Features

- 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

TO-252AA



Pin Assignment:

1. Base
- 2.4. Collector
3. Emitter

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

PARAMETER	SYMBOL	LIMIT	UNITS
Collector-Base Voltage	V _{CB0}	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 _{θJA}	62.5	°C/W

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



PBSS4232DD

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 _{CE} = 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



PBSS4232DD

TYPICAL CHARACTERISTIC CURVES

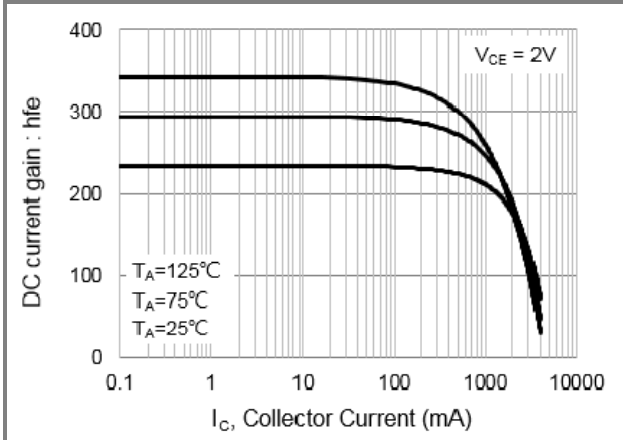


Fig.1 DC Current Gain

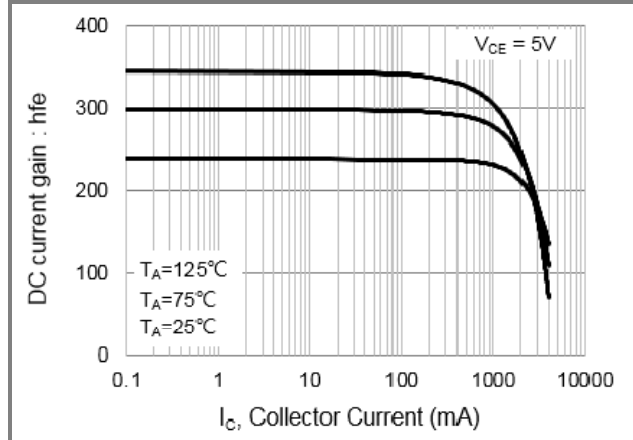


Fig.2 DC Current Gain

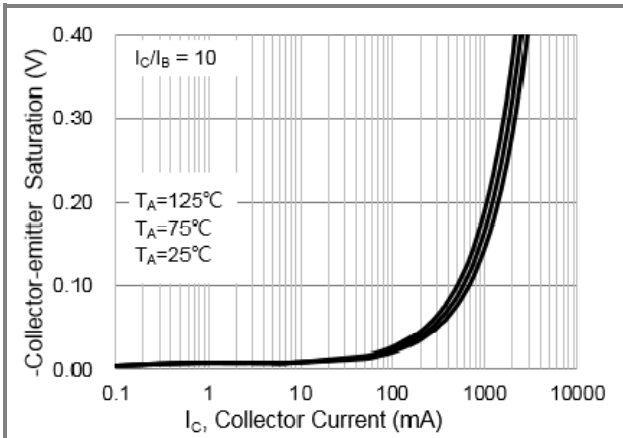


Fig.3 Collector-Emitter Saturation Voltage

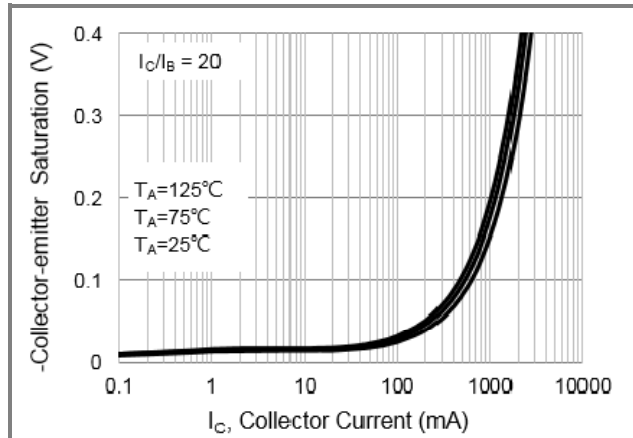


Fig.4 Collector-Emitter Saturation Voltage

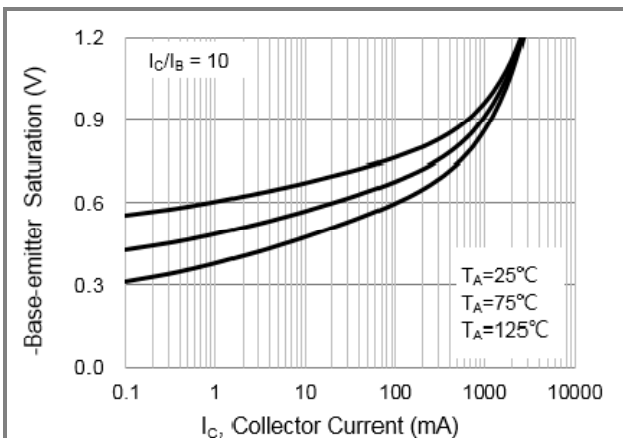


Fig.5 Base-Emitter Saturation Voltage

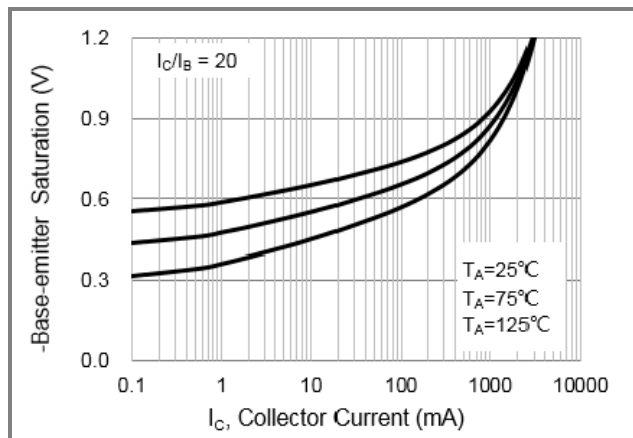


Fig.6 Base-Emitter Saturation Voltage



PBSS4232DD

TYPICAL CHARACTERISTIC CURVES

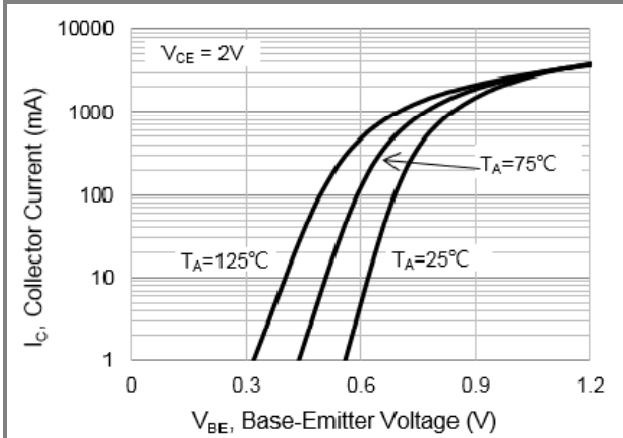


Fig.7 Base-Emitter Voltage

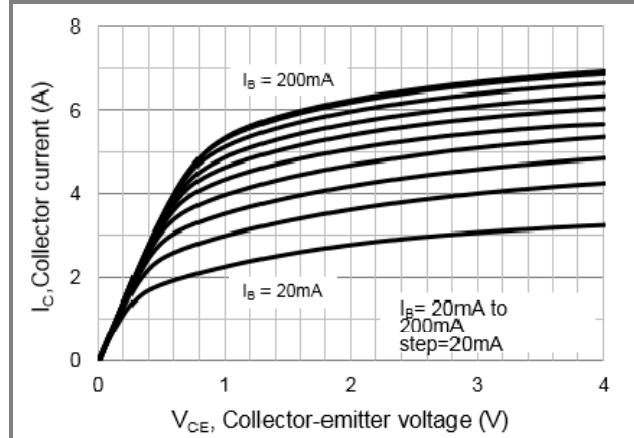


Fig.8 Collector Current

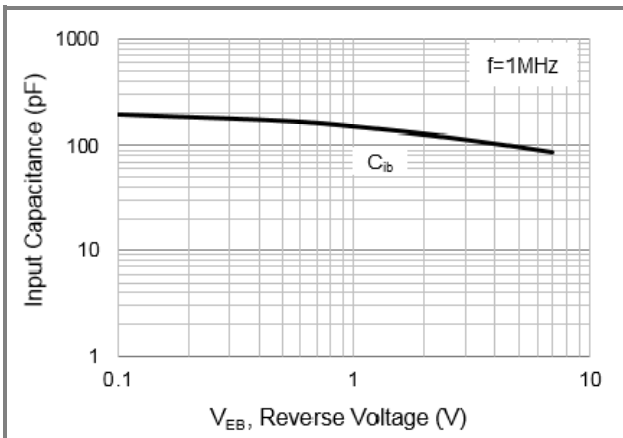


Fig.9 Input Capacitance

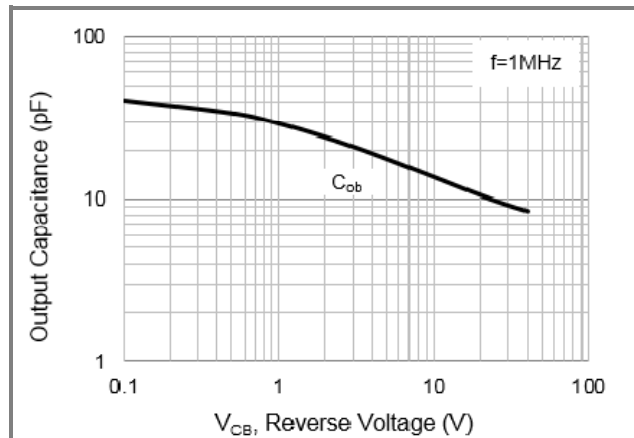


Fig.10 Output Capacitance

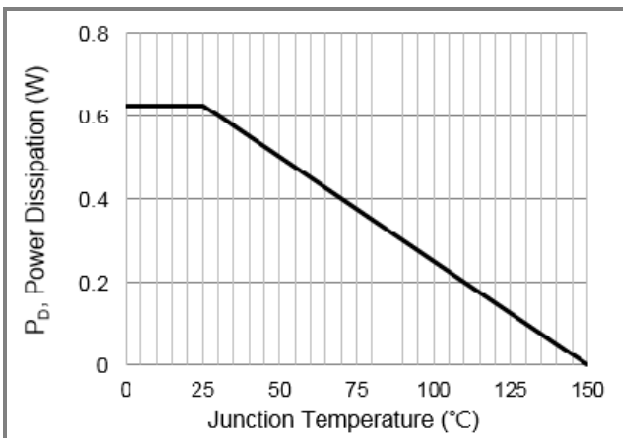


Fig.11 Power Derating Curve

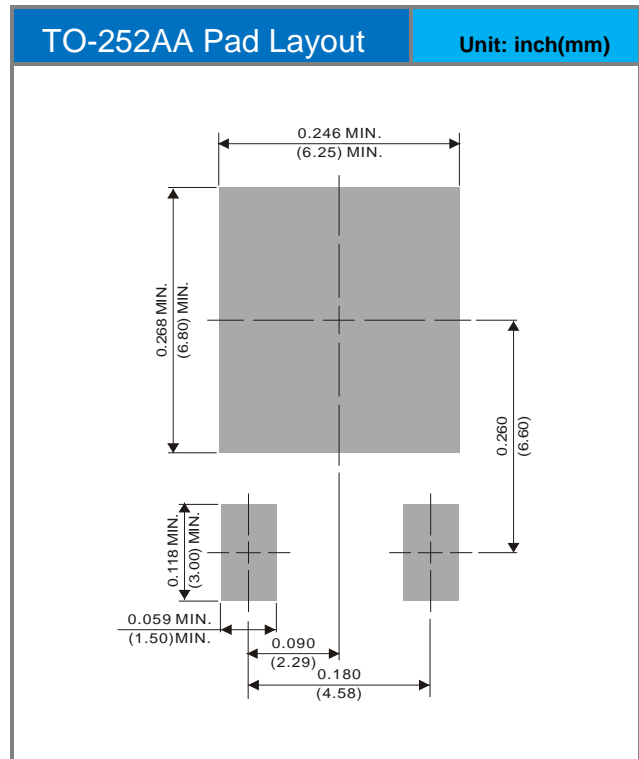
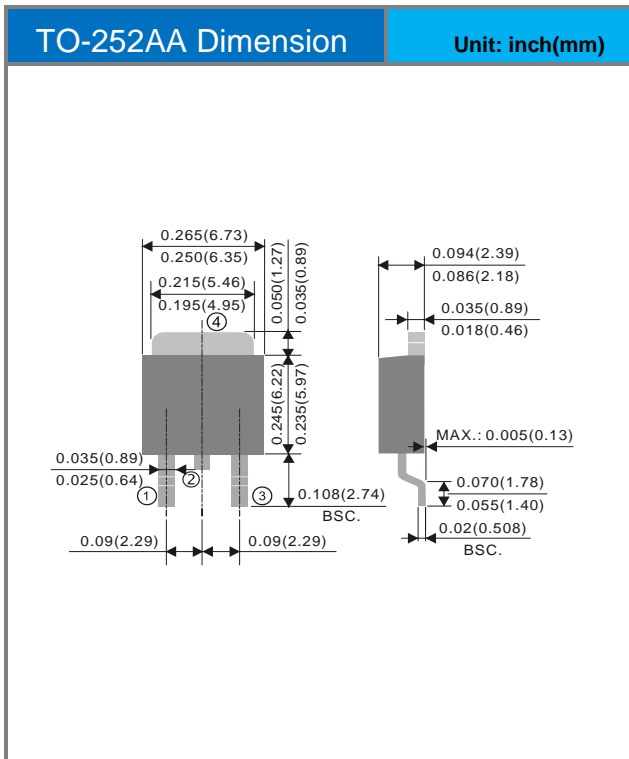


PBSS4232DD

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





PBSS4232DD

Disclaimer

- Reproducing and modifying information of the document is prohibited without permission from Panjit International Inc..
- Panjit International Inc. reserves the rights to make changes of the content herein the document anytime without notification. Please refer to our website for the latest document.
- Panjit International Inc. disclaims any and all liability arising out of the application or use of any product including damages incidentally and consequentially occurred.
- Panjit International Inc. does not assume any and all implied warranties, including warranties of fitness for particular purpose, non-infringement and merchantability.
- Applications shown on the herein document are examples of standard use and operation. Customers are responsible in comprehending the suitable use in particular applications. Panjit International Inc. makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.
- The products shown herein are not designed and authorized for equipments requiring high level of reliability or relating to human life and for any applications concerning life-saving or life-sustaining, such as medical instruments, transportation equipment, aerospace machinery et cetera. Customers using or selling these products for use in such applications do so at their own risk and agree to fully indemnify Panjit International Inc. for any damages resulting from such improper use or sale.
- Since Panjit uses lot number as the tracking base, please provide the lot number for tracking when complaining.