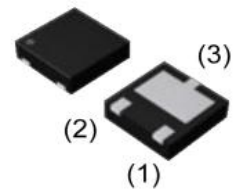


General Description

2SAR562F3-CN combination of 45V 3A PNP low VCEsat Breakthrough In Small Signal (BISS) transistor.



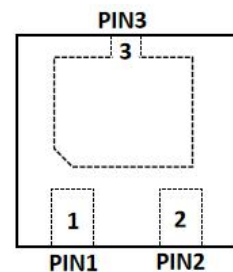
DFN2020-3L

Specification Features

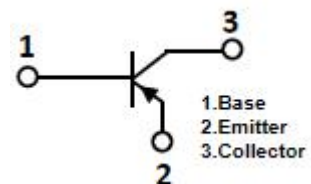
- High collector current capability 3A I_c
- High energy efficiency due to less heat generation
- High Power and current handing capability
- Smaller required Printed-Circuit Board (PCB)

Application

- Charging circuits
- Load switch
- Power management
- Battery-driven devices
- PWM applications
- Power switches (e.g. motors, fans)



Pin configuration (Top view)



Circuit diagram

Absolute Maximum Ratings (T_J =25°C)

Parameter	Symbol	Value	Units
Collector-emitter Voltage	V _{CEO}	-45	V
Collector-base Voltage	V _{CBO}	-25	V
Emitter-base Voltage	V _{EBO}	-6	V
Continues Collector Current a	I _C	-3	A
Continues Collector Current b		-2	A
Pulse Collector Current	I _{CM}	-6	A
Power dissipation	P _D	2	W
Power dissipation		1.5	W
Junction Temperature	T _J	150	°C
Lead Temperature	T _L	-	°C
Storage Temperature Range	T _{stg}	-55~155	°C

Electrical Characteristics (T_J =25°C)

Parameter	Symbol	Test Conditions	Min.	Typ.	Max.	Unit
Collector-emitter Breakdown Voltage	BV _{CEO}	I _C = -1mA	-45			V
Collector-base Breakdown Voltage	BV _{CBO}	I _C = -100μA	-25			V
Emitter-base Breakdown Voltage	BV _{EBO}	I _E = -100μA	-6			V
Collector Cutoff Current	I _{CBO}	V _{CB} = -50V			-100	nA
Emitter Cutoff Current	I _{EBO}	V _{EB} = -6V			-100	nA
Collector-emitter Saturation Voltage	V _{CE(sat)}	I _C = -1A, I _B = -15mA			-300	mV
		I _C = -2A, I _B = -200mA			-500	mV
Base-emitter Saturation Voltage	V _{BE(sat)}	I _C = -2A, I _B = -200mA		-1	-1.5	V
Dc Current Gain	h _{FE}	I _C = -0.5A, V _{CE} = -0.5V	150		400	
		I _C = -0.5A, V _{CE} = -2V	100		400	

Notes .Repetitive Rating: Pulse width limited by maximum junction temperature

Typical Electrical and Thermal Characteristics (Curves)

Fig.1 Grounded Emitter Propagation Characteristics

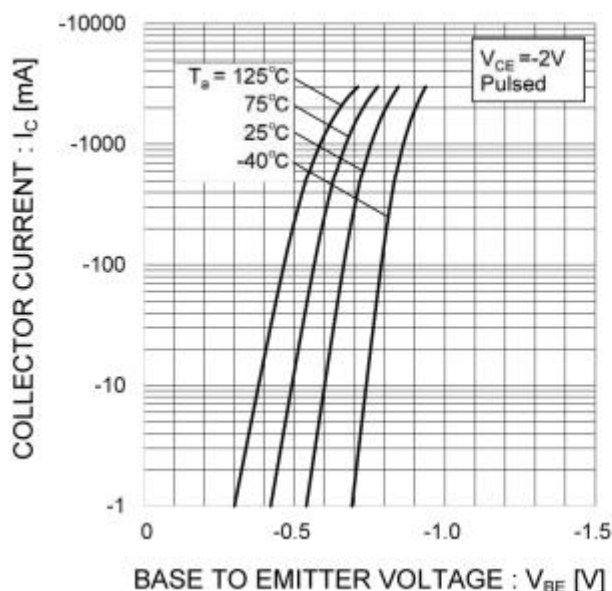


Fig.2 Typical Output Characteristics

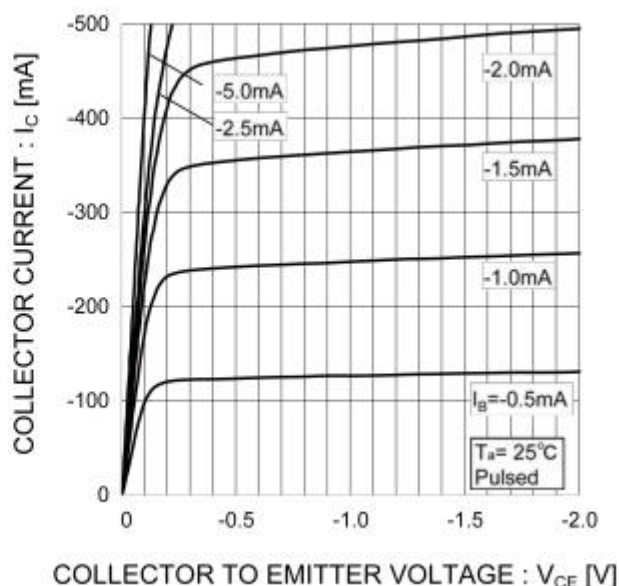


Fig.3 DC Current Gain vs. Collector Current (I)

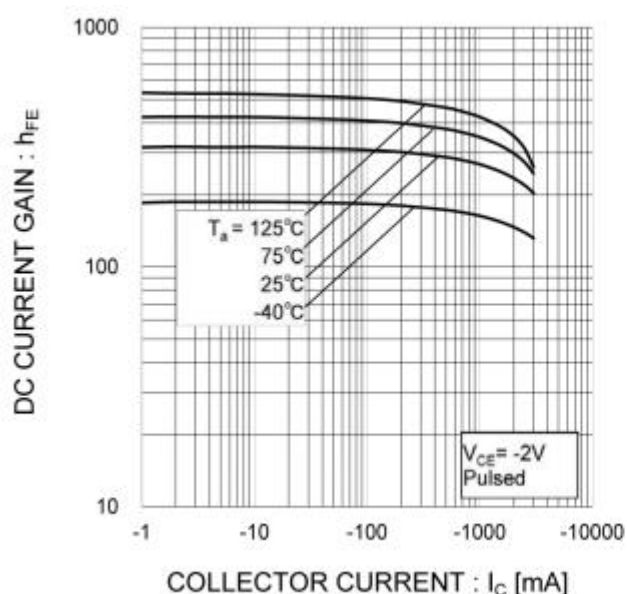


Fig.4 DC Current Gain vs. Collector Current (II)

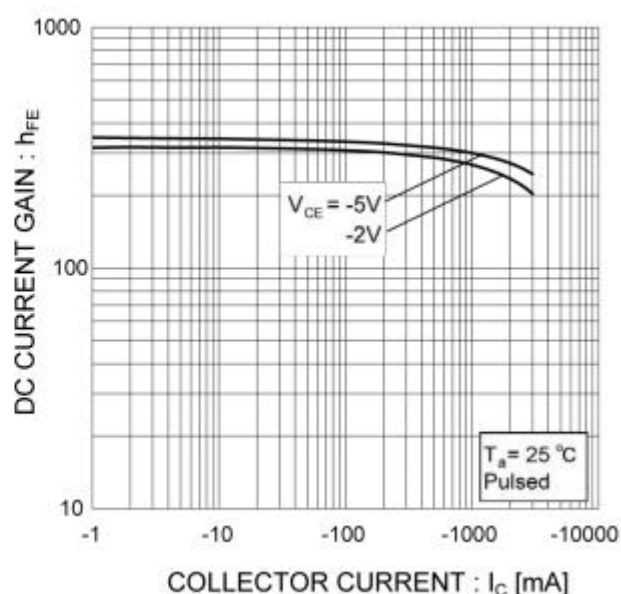


Fig.5 Collector-Emitter Saturation Voltage vs. Collector Current (I)

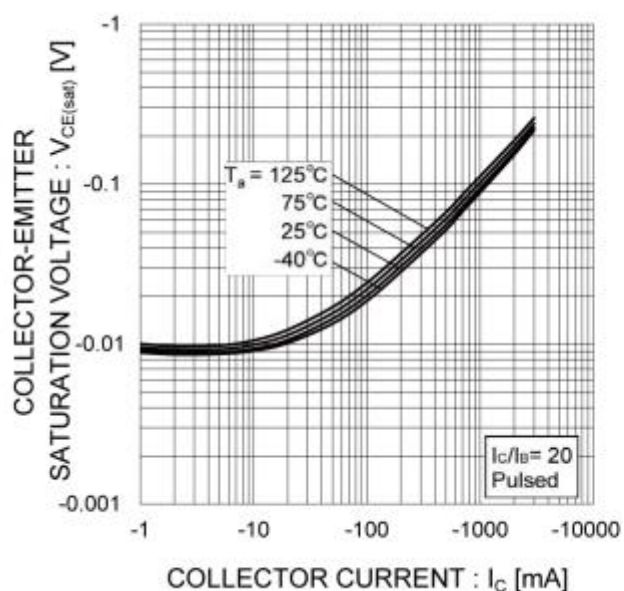


Fig.6 Collector-Emitter Saturation Voltage vs. Collector Current (II)

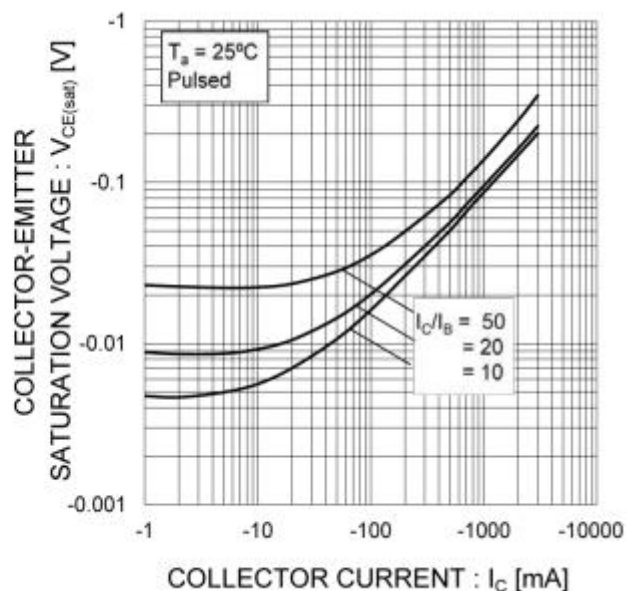


Fig.7 Base-Emitter Saturation Voltage vs. Collector Current

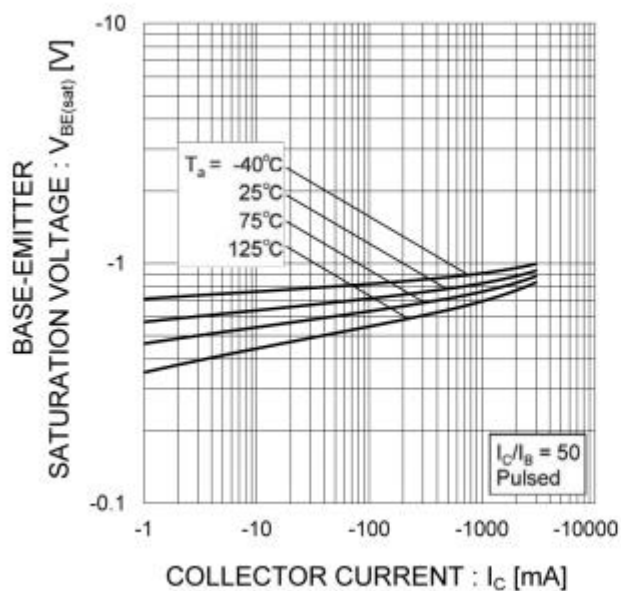
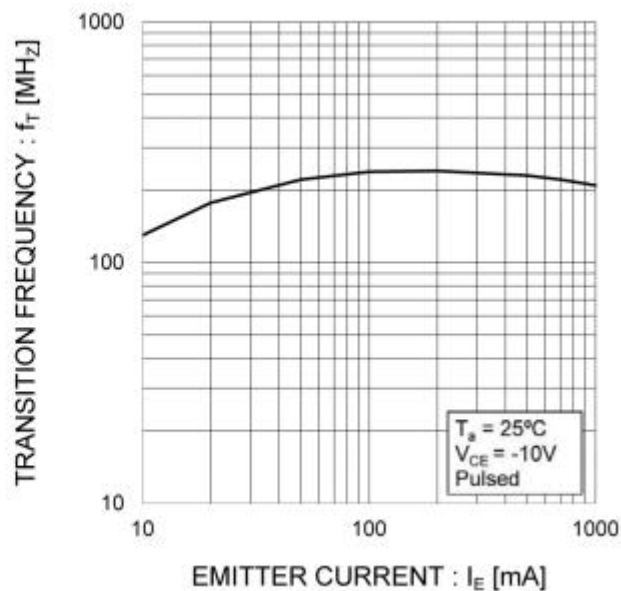
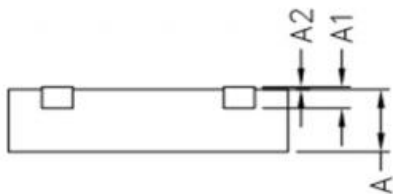
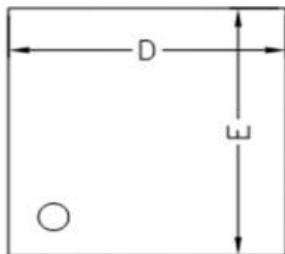
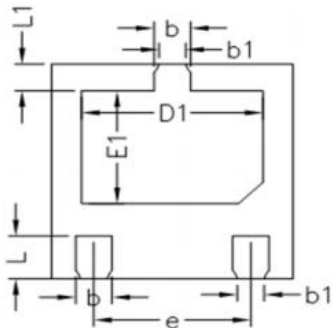


Fig.8 Gain Bandwidth Product vs. Emitter Current



Package Outline Dimensions



DFN2.0*2.0-3L POD			
Dimension Symbol	Min(mm)	TYP(mm)	Max (mm)
D	1.95	2.00	2.05
E	1.95	2.00	2.05
D1	1.45	1.50	1.55
E1	1.00	1.05	1.10
L1	0.20	0.25	0.30
L	0.35	0.40	0.45
b1	0.22REF		
b	0.25	0.30	0.35
e	1.30BSC		
A1	0.15REF		
A2	0.00	0.02	0.05
A	0.45	0.6	0.75

Device Marking	Device	Package	Reel size	Tape width	Quantity
M2N33	2SAR562F3-CN	DFN2020-3L	7inch	8mm	3000

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