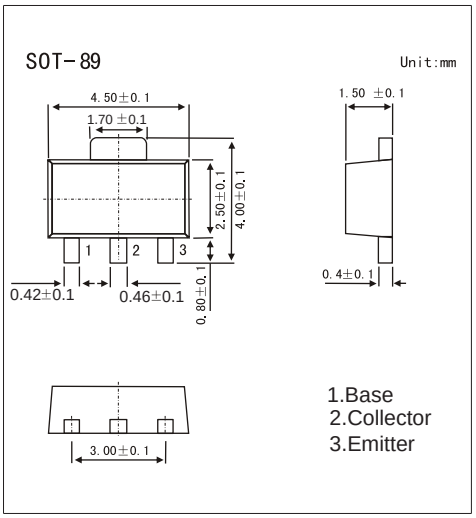
PBSS304NX

Surface Mount NPN Silicon Power Transistor

■ Features

- NPN transistor High current output up to 3A
- Low Saturation Voltage



■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector to Base Voltage	V_{CBO}	60	V
Collector to Emitter Voltage	V_{CEO}	60	V
Emitter to Base Voltage	V_{EBO}	6	V
Collector Current to Continuous	I_C	5	A
Collector Dissipation	P_C	1.4-1.6	W
Junction Temperature	T_J	150	℃
Storage Temperature	T_{stg}	-55 to 150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base breakdown voltage	V_{CBO}	I_C=100uA ,I_E=0	60			V
Collector-emitter breakdown voltage	V_{CEO}	I_C= 10 mA , I_B=0	60			V
Emitter-base breakdown voltage	V_{EBO}	I_E= 100 uA ,I_C=0	6			V
Collector cut-off current	I_{CBO}	V_{CB}=80 V , I_E=0			100	nA
Collector cut-off current	I_{CEO}	V_{CE}=60 V , I_B=0			100	nA
Emitter cut-off current	I_{EBO}	V_{EB}=6V , I_C=0			100	nA
DC current gain	h_{FE}	V_{CE}= 2V, I_C= 1A	160		270	
		V_{CE}=2V, I_C= 100mA				
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
Transition frequency	f_T	V_{CE}=5 V, I_C=0.1mA,f = 10MHz	50	130		MHz

■ Marking

Marking	W5E ***

Figure 1. DC Current Gain

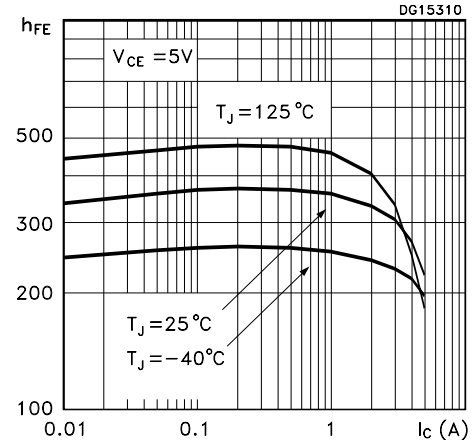


Figure 2. DC Current Gain

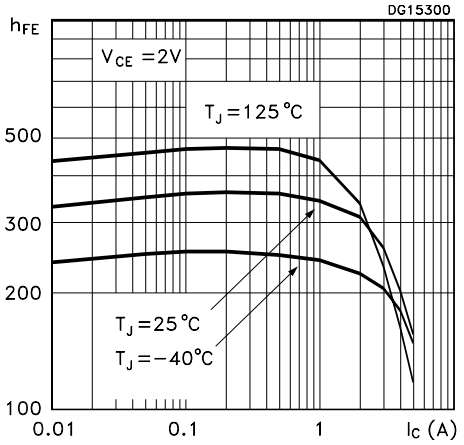


Figure 3. Collector Emitter Saturation Voltage

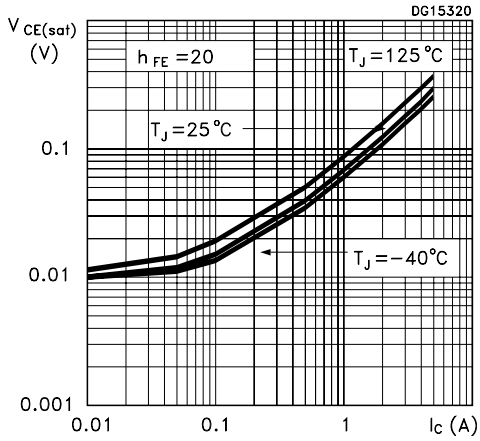


Figure 4. Base Emitter Saturation Voltage

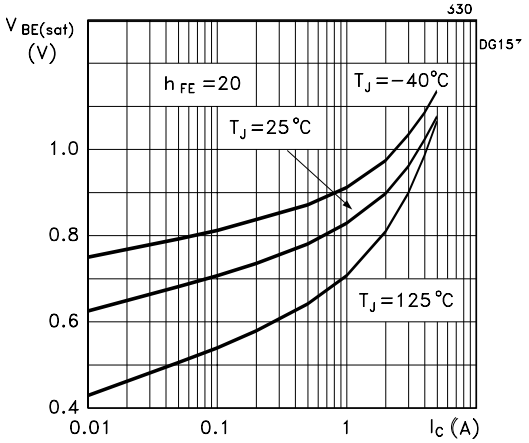


Figure 5. Resistive Load Switching Times

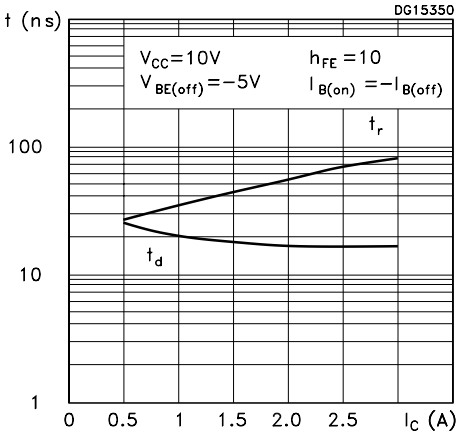


Figure 6. Resistive LoadSwitching Times

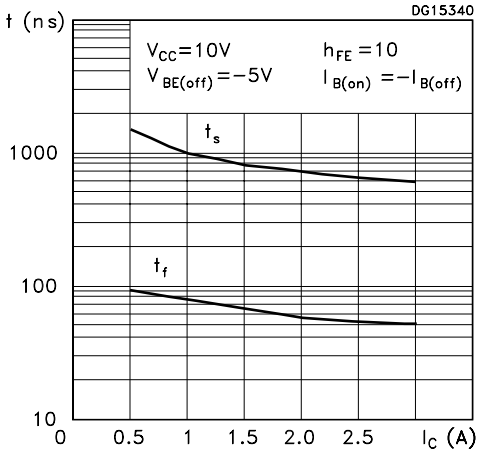


Figure 7. Reverse Bised SOA

