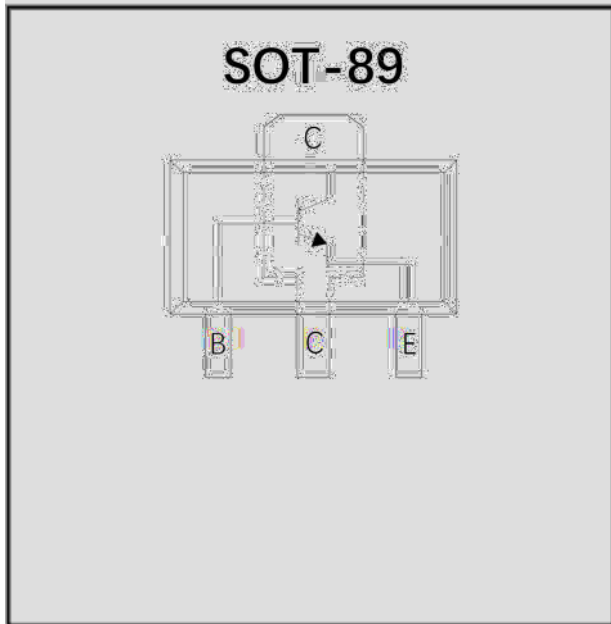


NPN General Purpose Amplifier



Features

- Epoxy meets UL-94 V-0 flammability rating
- Halogen free available upon request by adding suffix "HF"
- Moisture Sensitivity Level 1
- High-speed switching

Mechanical Data

- Package:** SOT-89
- Molding compound meets UL 94 V-0 flammability rating, RoHS-compliant, halogen-free
- Terminals:** Tin plated leads, solderable per J-STD-002 and JESD22-B102
- Marking: 1A

Maximum Ratings (Ta=25 unless otherwise noted)

Item	Symbol	Unit	Conditions	Value
Minimum Collector-Emitter Voltage	V_{CEO}	V	$I_C=1mA, I_B=0$	40
Minimum Collector-Base Voltage	V_{CBO}	V	$I_C=10\mu A, I_E=0$	60
Minimum Emitter-Base Voltage	V_{EBO}	V	$I_E=10\mu A, I_C=0$	6
Collector Current	I_C	mA		200
Collector Power Dissipation	P_C	mW		500
Thermal Resistance From Junction To Ambient	R_{JA}	/W		250
Operation Junction Temperature	T_j			-55 to +150
Storage Temperature	T_{stg}			-55 to +150



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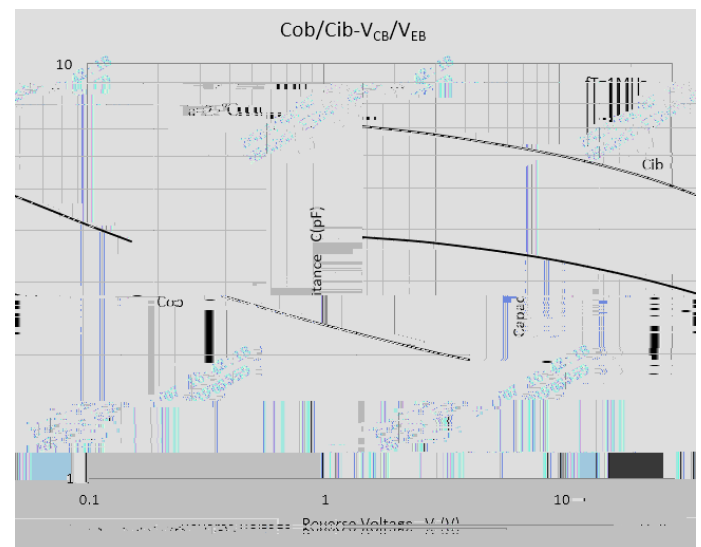
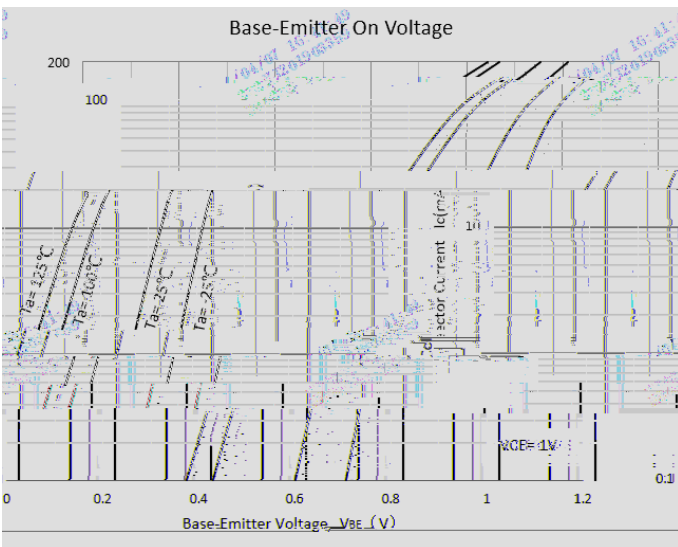
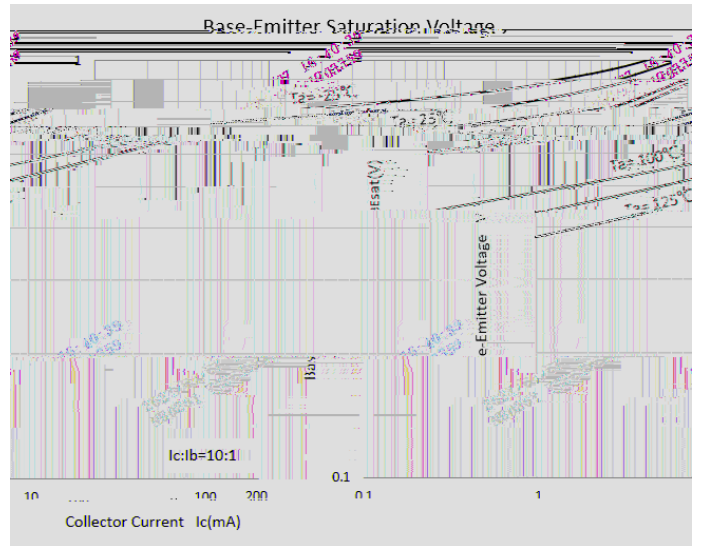
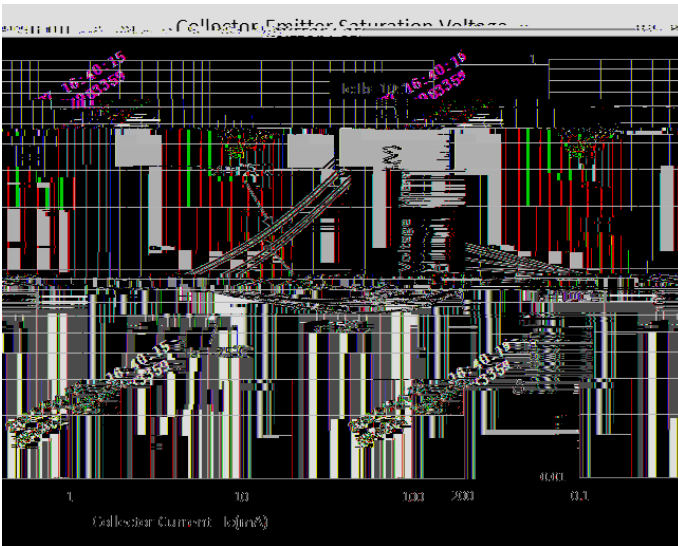
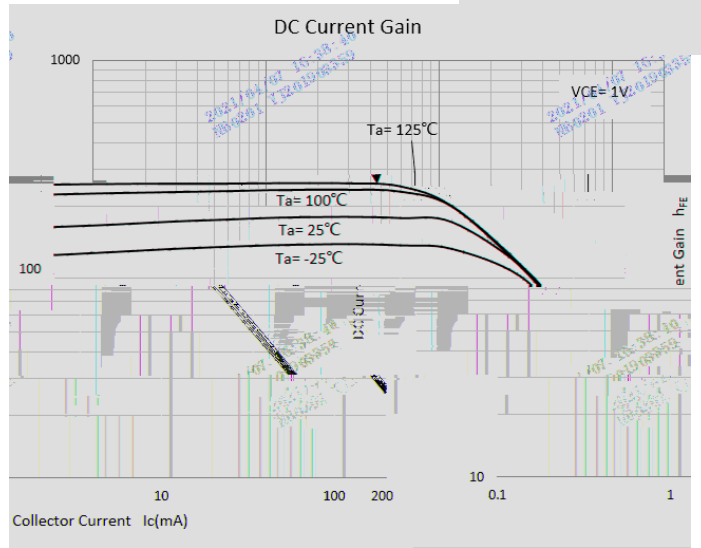
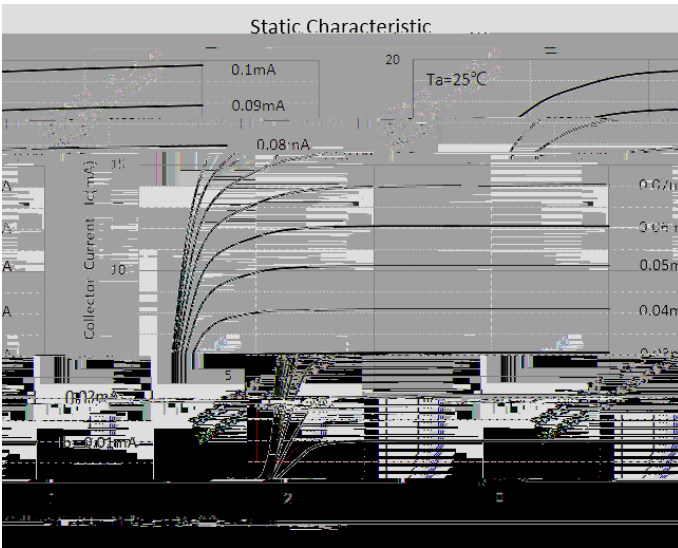
Electrical Characteristics (Ta=25 unless otherwise noted)

Item	Symbol	Unit	Conditions	Min	TYP	Max
Collector-Emitter Voltage	V_{CEO}	V	$I_C=1mA, I_B=0$	40		
Collector-Base Voltage	V_{CBO}	V	$I_C=10\mu A, I_E=0$	60		
Emitter-Base Voltage	V_{EBO}	V	$I_E=10\mu A, I_C=0$	6		
Collector-Base cut-off current	I_{CBO}	nA	$V_{CB}=30V$			50
Emitter-Base cut-off current	I_{EBO}	nA	$V_{EB}=6V$			50
DC Current Gain	h_{FE1}		$I_C=0.1mA, V_{CE}=1V$	60		
	h_{FE2}		$I_C=1mA, V_{CE}=1V$	80		
	h_{FE3}		$I_C=10mA, V_{CE}=1V$	100		300
	h_{FE4}		$I_C=50mA, V_{CE}=1V$	60		
	h_{FE5}		$I_C=100mA, V_{CE}=1V$	30		
Collector-Emitter Saturation Voltage	$V_{CE(sat)}$	V	$I_C=10mA, I_B=1mA$			0.2
			$I_C=50mA, I_B=5mA$			0.3
Base-Emitter Saturation Voltage	$V_{BE(sat)}$	V	$I_C=10mA, I_B=1mA$	0.65		0.85
			$I_C=50mA, I_B=5mA$			0.95
Transition Frequency	f_T	MHz	$I_C=10mA, V_{CE}=20V, f=100MHz$	300		
Output Capacitance	C_{obo}	pF	$V_{CB}=5.0V, f=1MHz, I_E=0$			4
Input Capacitance	C_{ibo}	pF	$V_{EB}=0.5V, f=1MHz, I_C=0$			8
Noise Figure	NF	dB				



PXT3904

Characteristics (Typical)





Disclaimer

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The product listed herein is designed to be used with ordinary electronic equipment or devices, and not designed to be used with equipment or devices which require high level of reliability and the malfunction of which would directly endanger human life (such as medical instruments, transportat