



2SC2222H

NPN General Purpose Switching Transistor

Voltage

40V

Current

600mA

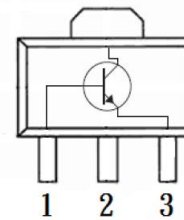
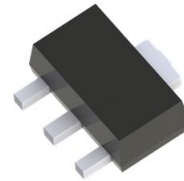
Features

- NPN epitaxial Silicon, Planar Design
- Collector-emitter voltage $V_{CE} = 40V$
- Collector current = 600mA
- Lead free in compliance with EU RoHS2.0 (2011/65/EU & 2015/865/EU directive)
- Green molding compound as per IEC61249 Std.. (Halogen Free)

Mechanical Data

- Case: SOT-89 Package
- Terminals: Solderable per MIL-STD-750, Method 2026
- Approx. Weight: 0.002 ounces, 0.057grams
- Marking: C2H

SOT-89



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

Maximum Ratings and Thermal Characteristics ($T_A=25^{\circ}C$ unless otherwise noted)

PARAMETER	SYMBOL	LIMIT	UNITS
Collector-Base Voltage	V_{CBO}	75	V
Collector-Emitter Voltage	V_{CEO}	40	V
Emitter-Base Voltage	V_{EBO}	6	V
Collector Current (DC)	I_C	600	mA
Collector Current (Pulse)	I_{CP}	800	mA
Total Power Dissipation	P_{TOT}	1.1	W
Junction to Ambient (Note1)	$R_{\theta JA}$	250	$^{\circ}C/W$
Operating Junction and Storage Temperature Range	T_J, T_{STG}	-55~150	$^{\circ}C$

Note1: Transistor mounted on a FR4 PCB, single-sided copper, tin-plated and standard footprint.



2SC2222H

Electrical Characteristics ($T_A=25^\circ\text{C}$ unless otherwise noted)

PARAMETER	SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNITS
OFF Characteristics						
Collector-Emitter Breakdown Voltage	BV_{CEO}	$I_C= 1.0\text{mA}, I_B= 0\text{A}$	40	-	-	V
Collector-Base Breakdown Voltage	BV_{CBO}	$I_C= 10\mu\text{A}, I_E= 0\text{A}$	75	-	-	V
Emitter-Base Breakdown Voltage	BV_{EBO}	$I_E= 10\mu\text{A}, I_C= 0\text{A}$	6	-	-	V
Collector-Base Cutoff Current	I_{CBO}	$V_{CB}= 60\text{V}, I_E= 0\text{A}$	-	-	10	nA
Emitter-Base Cutoff Current	I_{EBO}	$V_{EB}= 3\text{V}$	-	-	10	nA
Collector-Emitter Cutoff Current	I_{CES}	$V_{CES}= 60\text{V}$	-	-	10	nA
ON characteristics						
DC Current Gain	h_{FE}	$V_{CE}= 10\text{V}, I_C= 0.1\text{mA}$	35	-	-	-
		$V_{CE}= 10\text{V}, I_C= 1\text{mA}$	50	-	-	
		$V_{CE}= 10\text{V}, I_C= 10\text{mA}$	75	-	-	
		$V_{CE}= 10\text{V}, I_C= 150\text{mA}$	100	-	300	
		$V_{CE}= 1\text{V}, I_C= 150\text{mA}$	50	-	-	
		$V_{CE}= 10\text{V}, I_C= 500\text{mA}$	40	-	-	
Collector-Emitter Saturation Voltage	$V_{CE(SAT)}$	$I_C= 150\text{mA}, I_B= 15\text{mA}$	-	-	0.3	V
		$I_C= 500\text{mA}, I_B= 50\text{mA}$	-	-	1.0	
Base-Emitter Saturation voltage	$V_{BE(SAT)}$	$I_C= 150\text{mA}, I_B= 15\text{mA}$	-	-	1.2	V
		$I_C= 500\text{mA}, I_B= 50\text{mA}$	-	-	2.0	
Collector-Base Capacitance	C_{CBO}	$V_{CB}= 10\text{V}, f=1\text{MHz}$	-	-	8	pF
Emitter-Base Capacitance	C_{EBO}	$V_{CB}= 0.5\text{V}, f=1\text{MHz}$	-	-	25	
Delay Time	td	$V_{CC}= 3\text{V}, V_{BE}= -5\text{V}$	-	-	10	nS
Rise Time	tr	$I_C= 150\text{mA}, I_B= 15\text{mA}$	-	-	25	
Storage Time	ts	$V_{CC}= 30\text{V}, I_C= 150\text{mA}$	-	-	225	
Fall Time	tf	$I_{B1} = I_{B2} = 15\text{mA}$	-	-	60	
Turn-on Time	ton	$I_C= 150\text{mA}, I_{BON} = 15\text{mA}$	-	-	35	
Turn-off Time	toff	$I_{BOFF} = -15\text{mA}$	-	-	250	
Transition Frequency	fT	$V_{CE} = 10\text{V}; I_C = 20\text{mA}$ $F = 100\text{MHz}$	300	-	-	MHz



2SC2222H

TYPICAL CHARACTERISTIC CURVES

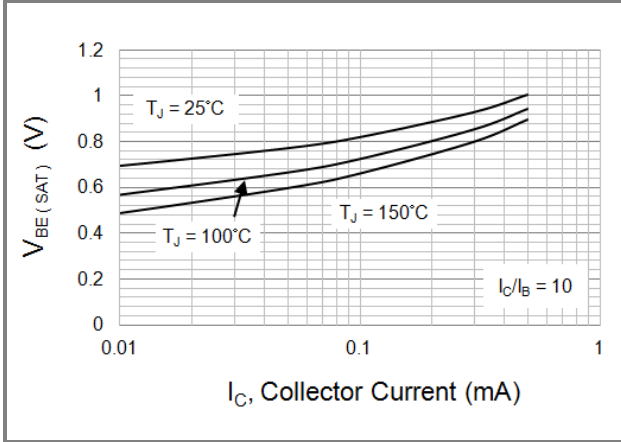


Fig.1 Typical Base-Emitter Saturation Voltage

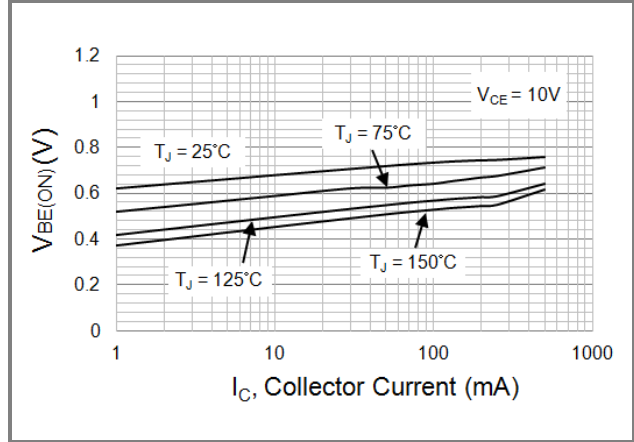


Fig.2 Typical Base-Emitter Turn-on Voltage

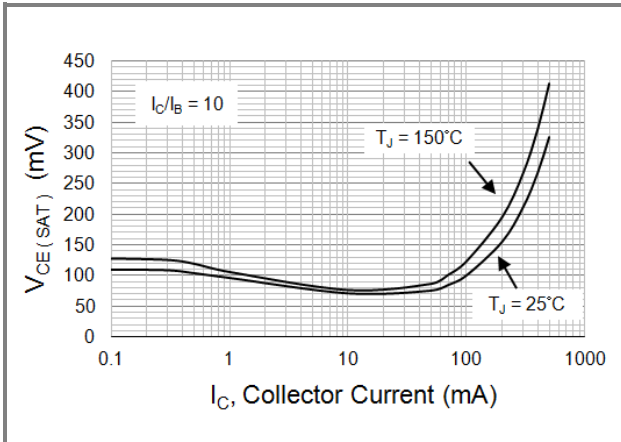


Fig.3 Typical Collector-Emitter Saturation

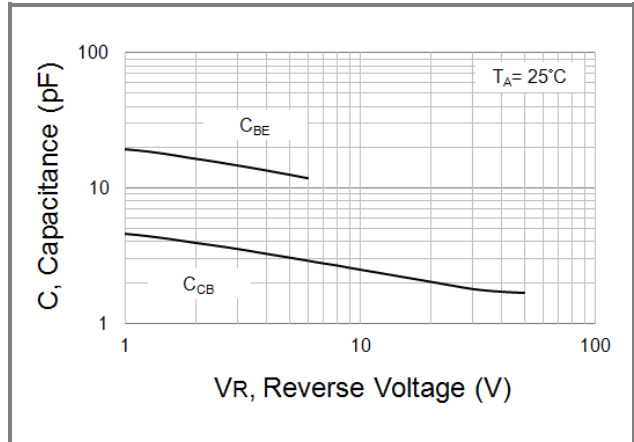


Fig.4 Typical Capacitance

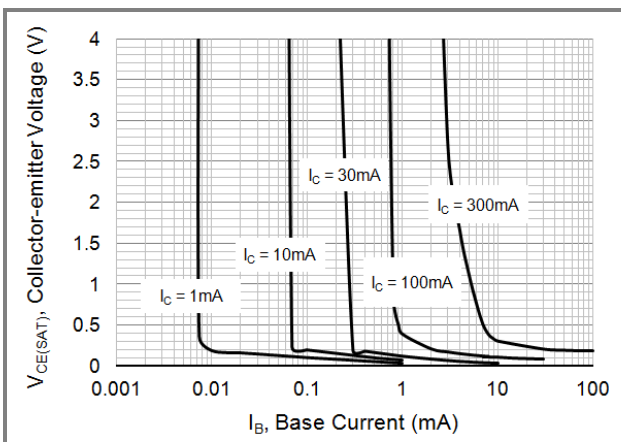


Fig.5 Typical Collector Saturation Region



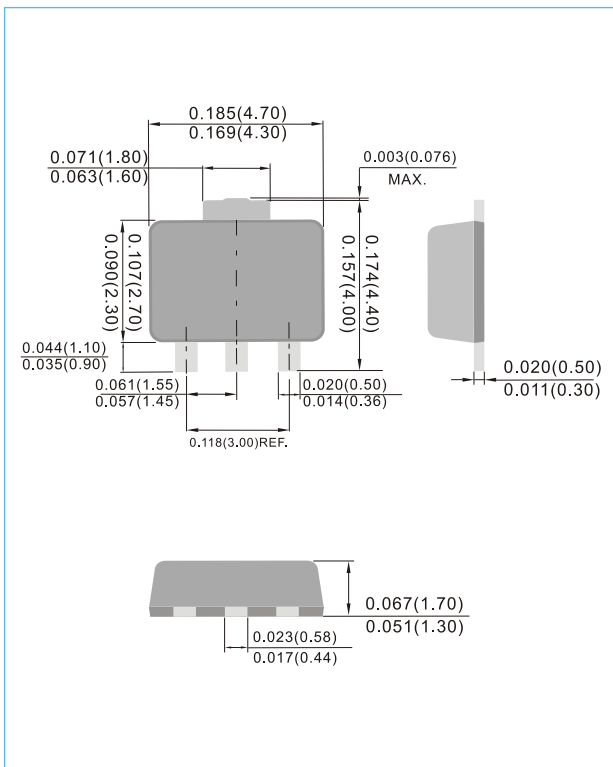
2SC2222H

Part No Packing Code Version

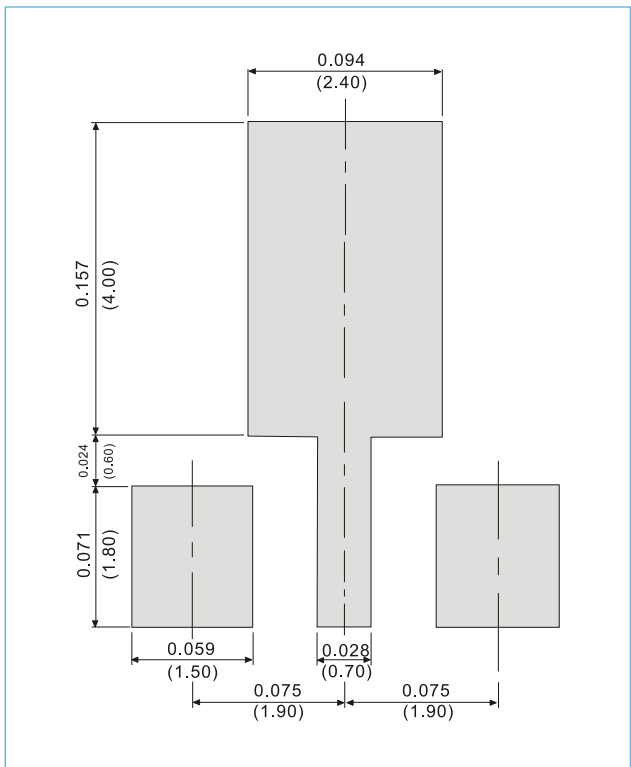
Part No Packing Code	Package Type	Packing Type	Marking	Version
2SC2222H_R1_00001	SOT-89	1000pcs / 7" reel	C2H	Halogen free

Packaging Information & Mounting Pad Layout

SOT-89 Unit : inch(mm)



SOT-89 Unit : inch(mm)





2SC2222H

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.

单击下面可查看定价，库存，交付和生命周期等信息

[>>Panjit\(强茂\)](#)