

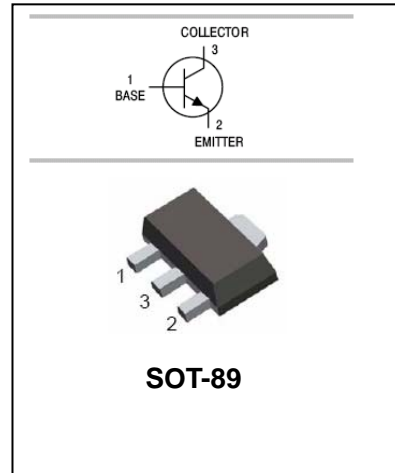


**NPN SILICON EPITAXIAL TRANSISTOR  
POWER MINI MOLD**

**2SC3420**

**FEATURES**

- High DC Current Gain:  
 $h_{FE}=140\sim600(V_{CE}=2V, I_C=0.5A)$   
 $h_{FE}=70(\text{Min.}) (V_{CE}=2V, I_C=4A)$
- Low Saturation Voltage:  $V_{CE(sat)}=1.0V(\text{Max.}) (I_C=4A, I_B=0.1A)$



**APPLICATIONS**

- STOROBO FLASH APPLICATION
- MEDIUM POWER AMPLIFIER APPLICATIONS.

**ORDERING INFORMATION**

Type No.	Marking	Package Code
2SC3420	3420	SOT-89

**MAXIMUM RATING @ Ta=25°C unless otherwise specified**

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	50	V
$V_{CEO}$	Collector-Emitter Voltage	20	V
$V_{EBO}$	Emitter-Base Voltage	8	V
$I_C$	Collector Current	5 8	A
	DC		
	Pulse		
$I_B$	Base Current	1	A
$P_C$	Power Dissipation	0.5	W
$T_J$	Junction Temperature	150	°C
$T_{stg}$	Storage Temperature	-55 to +150	°C



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**ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified**

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	20	-	-	V
Collector cut-off current	$I_{CBO}$	$V_{CB}=40V, I_E=0$	-	-	0.1	$\mu A$
Emitter cut-off current	$I_{EBO}$	$V_{EB}=8V, I_C=0$	-	-	0.1	$\mu A$
DC current gain	$h_{FE(1)}$	$V_{CE}=2V, I_C=0.5A$	140	-	600	
	$h_{FE(2)}$	$V_{CE}=2V, I_C=4A$	70	-	-	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=4A, I_B=0.1A$	-	-	1.0	V
Base-emitter	$V_{BE}$	$V_{CE}=2V, I_C=4A$	-	-	1.5	V
Transition frequency	$f_T$	$V_{CE}=2V, I_C=0.5A$	-	100	-	MHz
Feed-Back Capacitance	$C_{Ob}$	$V_{CB} = 10 V, I_C = 0 mA,$ $f = 1.0 MHz$	-	40	-	pF

**CLASSIFICATION OF  $h_{FE(1)}$**

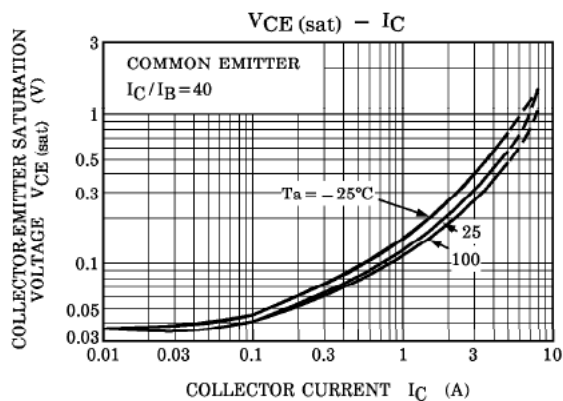
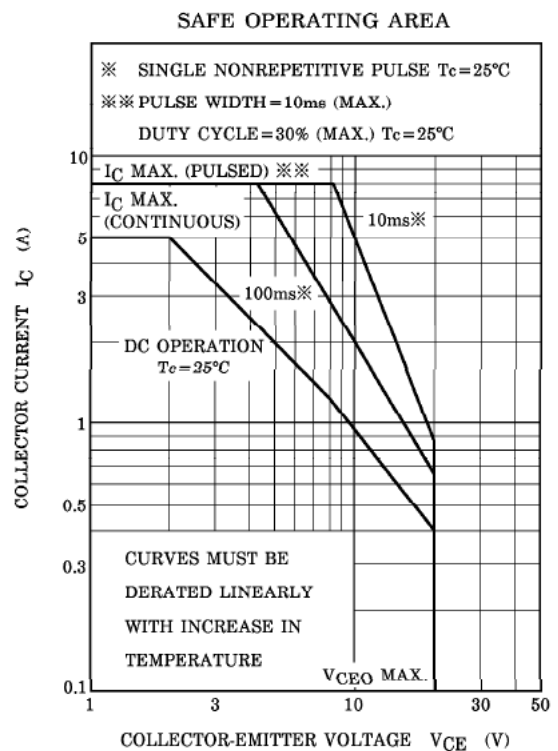
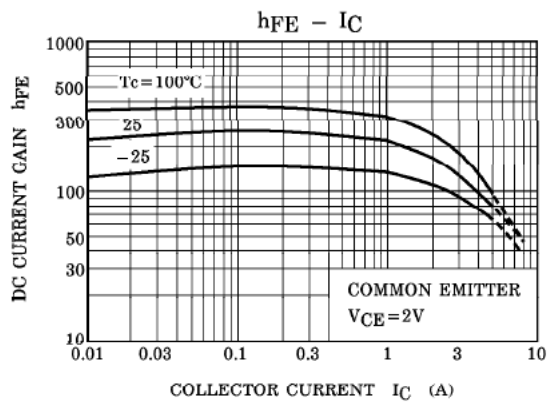
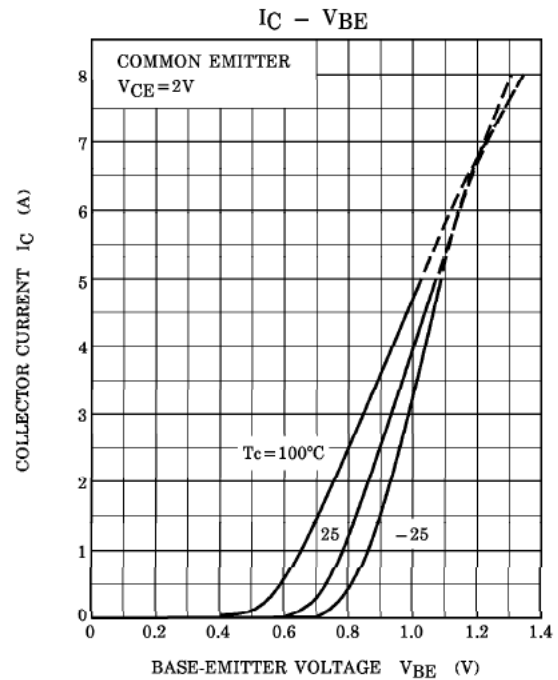
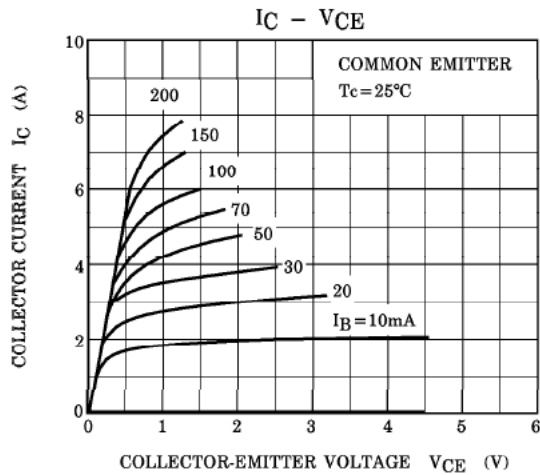
Range	140-240	200-400	300-600



**NPN SILICON EPITAXIAL TRANSISTOR**  
**POWER MINI MOLD**

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TYPICAL CHARACTERISTICS @  $T_a=25^\circ\text{C}$  unless otherwise specified





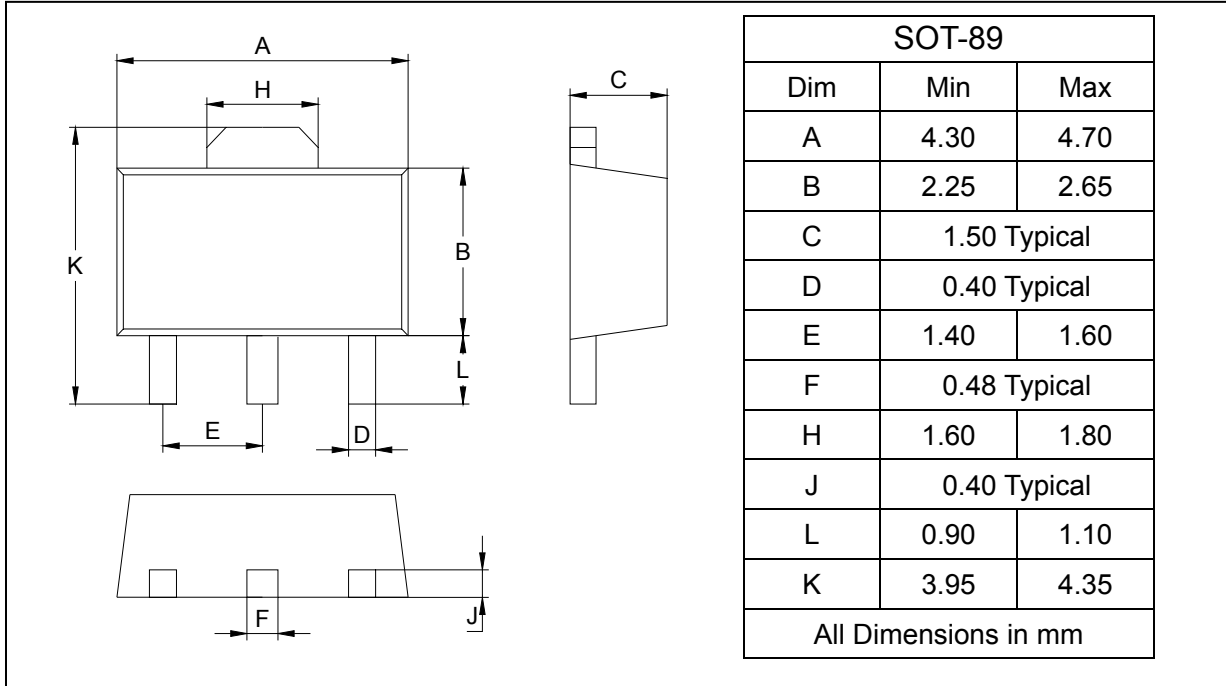
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POWER MINI MOLD**

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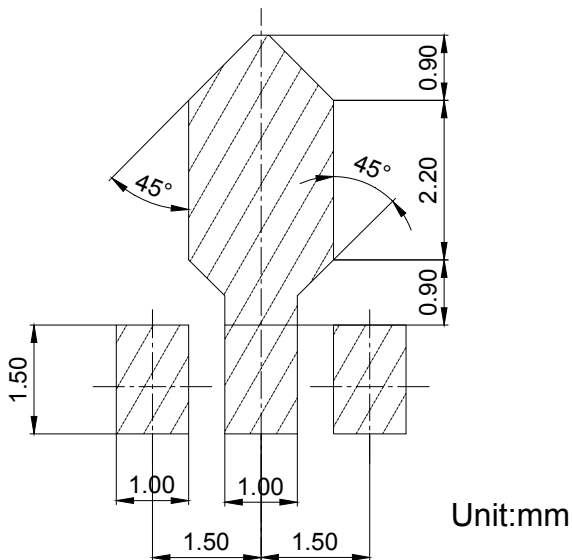
**PACKAGE OUTLINE**

Plastic surface mounted package

SOT-89



**SOLDERING FOOTPRINT**



**PACKAGE INFORMATION**

Device	Package	Shipping
2SC3420	SOT-89	1000/Tape&Reel