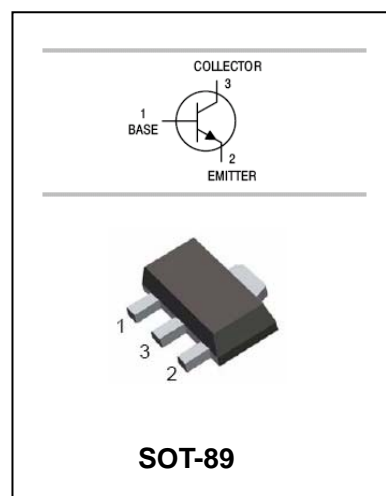


Silicon NPN epitaxial planar type

2SD1119

FEATURES

- Low collector-emitter saturation voltage $V_{CE(sat)}$.
- Satisfactory operation performances at high efficiency with the low-voltage power supply.



ORDERING INFORMATION

Type No.	Marking	Package Code
2SD1119	TQ/TR	SOT-89

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Base Voltage	40	V
V_{CEO}	Collector-Emitter Voltage	25	V
V_{EBO}	Emitter-Base Voltage	7	V
I_C	Collector Current	3	A
I_{CP}	Peak Collector Current	5	A
P_C	Collector power dissipation	1	W
T_j	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-55 to +150	°C



Silicon NPN epitaxial planar type

2SD1119

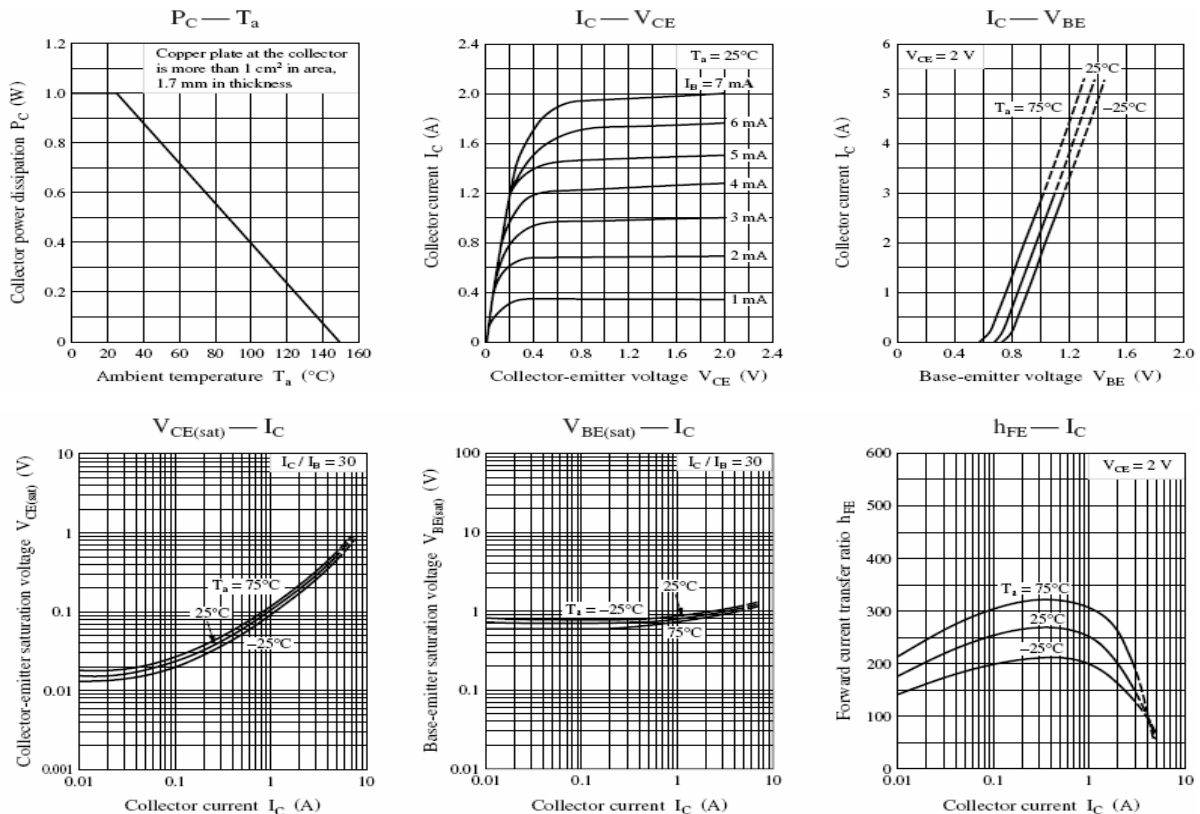
ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=1mA, I_B=0$	25			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=10\mu A, I_C=0$	7			V
Collector cut-off current	I_{CBO}	$V_{CB}=10V, I_E=0$			0.1	μA
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C/I_B=3A/0.1A$			1	V
DC current gain(note)	h_{FE}	$V_{CE}=2V, I_C=0.5A$	230		600	
		$V_{CE}=2V, I_C=2A$	150			
Current gain bandwidth product	f_T	$V_{CE}=6V, I_C=50mA, f=200MHz$		150		MHz
Output Capacitance	C_{ob}	$V_{CB}=20V, f=1MHz, I_E=0A$			50	pF

CLASSIFICATION OF h_{FE2}

RANK	Q	R
RANGE	230-380	340-600
MARKING	TQ	TR

TYPICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified



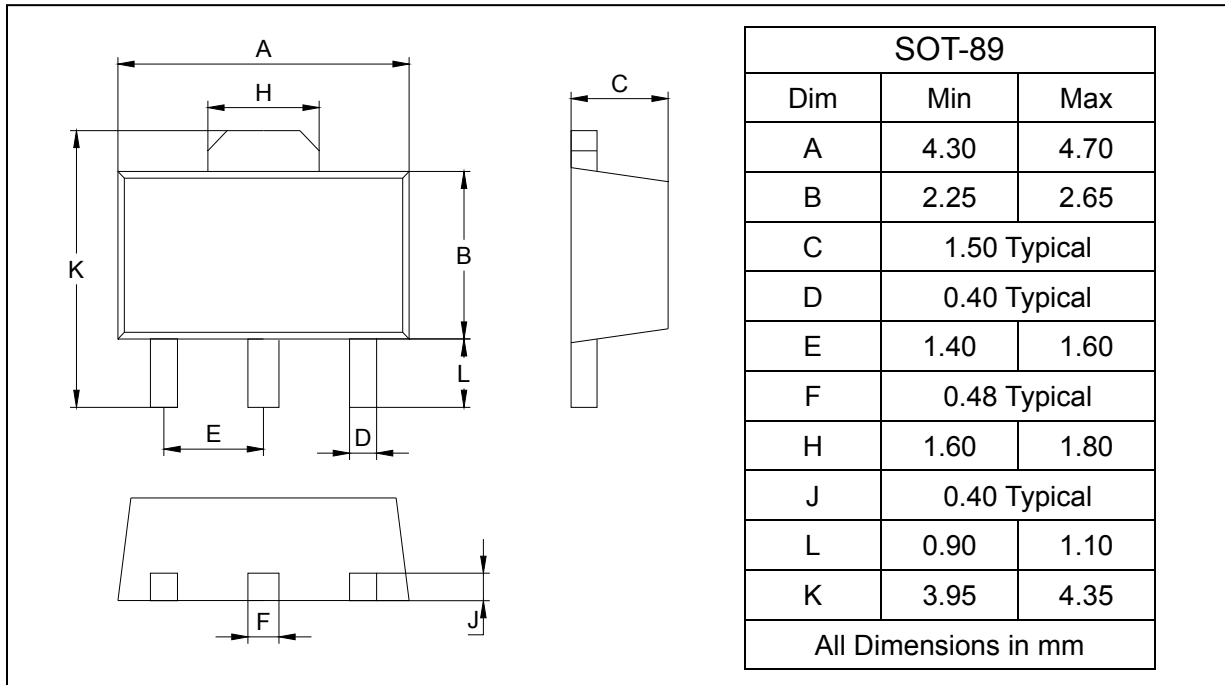
Silicon NPN epitaxial planar type

2SD1119

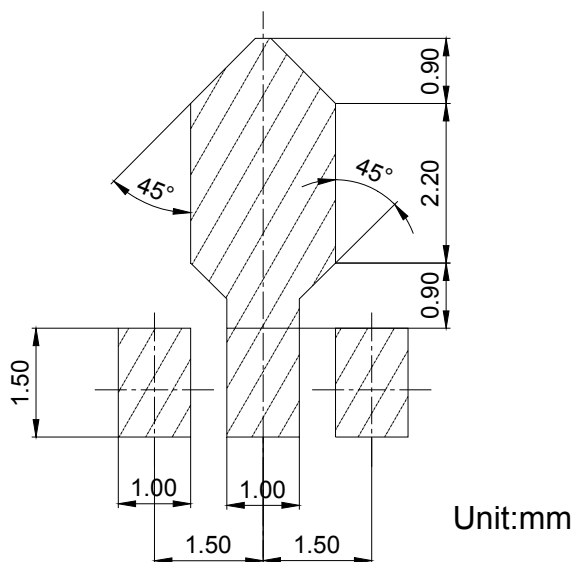
PACKAGE OUTLINE

Plastic surface mounted package

SOT-89



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
2SD1119	SOT-89	1000/Tape&Reel