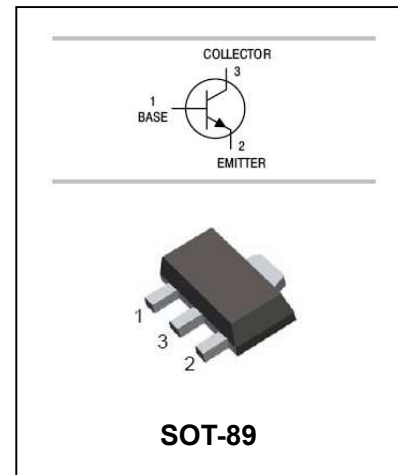


Medium power transistor(80V,0.7A)

2SD1767

FEATURES

- High breakdown voltage and high current.
- Complementary pair with 2SB1189.



ORDERING INFORMATION

Type No.	Marking	Package Code
2SD1767	DCP/DCQ/DCR	SOT-89

MAXIMUM RATING @ Ta=25°C unless otherwise specified

Symbol	Parameter	Value	Units
V_{CBO}	Collector-Base Voltage	80	V
V_{CEO}	Collector-Emitter Voltage	80	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	0.7	A
P_C	Collector Dissipation	500	mW
T_j, T_{stg}	Junction and Storage Temperature	-55 to +150	°C

Medium power transistor(80V,0.7A)

2SD1767

ELECTRICAL CHARACTERISTICS @ Ta=25°C unless otherwise specified

Parameter	Symbol	Test conditions	MIN	TYP	MAX	UNIT
Collector-base breakdown voltage	$V_{(BR)CBO}$	$I_C=50\mu A, I_E=0$	80			V
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=2mA, I_B=0$	80			V
Emitter-base breakdown voltage	$V_{(BR)EBO}$	$I_E=50\mu A, I_C=0$	5			V
Collector cut-off current	I_{CBO}	$V_{CB}=50V, I_E=0$			0.5	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=4V, I_C=0$			0.5	μA
DC current gain	h_{FE}	$V_{CE}=3V, I_C=0.1A$	120		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=0.5A, I_B=0.05A$		0.2	0.4	V
Transition frequency	f_T	$V_{CE}=10V, I_C=50mA, f=100MHz$		120		MHz
Collector output capacitance	C_{ob}	$V_{CB}=10V, I_E=0, f=1MHz$		10		pF

CLASSIFICATION OF h_{FE}

Rank	P	Q	R
Range	82-180	120-270	180-390
MARKING	DCP	DCQ	DCR

Medium power transistor(80V,0.7A)

2SD1767

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

Fig. 1 $P_C - T_a$

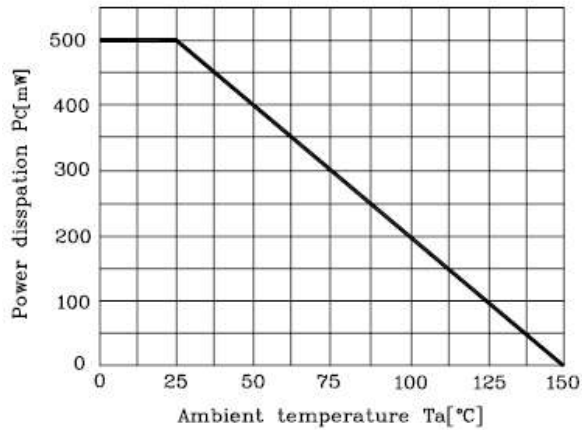


Fig. 2 $I_C - V_{BE}$

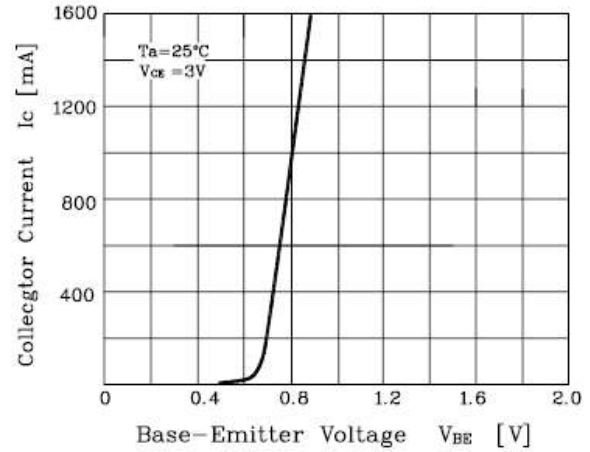


Fig. 3 $I_C - V_{CE}$

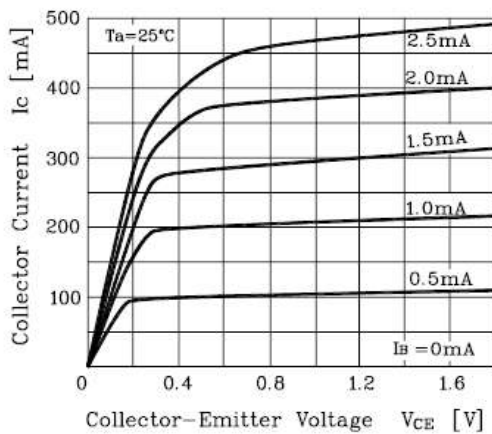
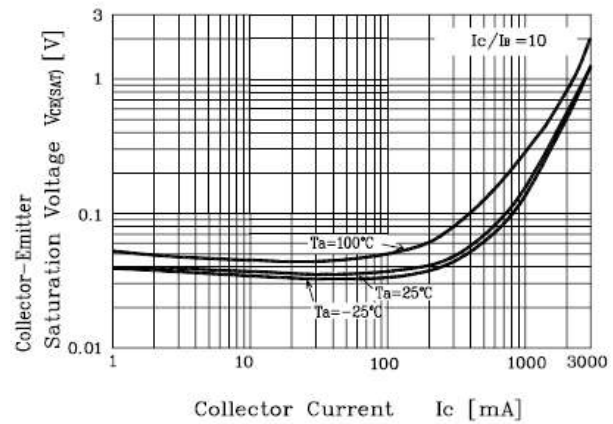


Fig. 4 $V_{CE(sat)} - I_C$



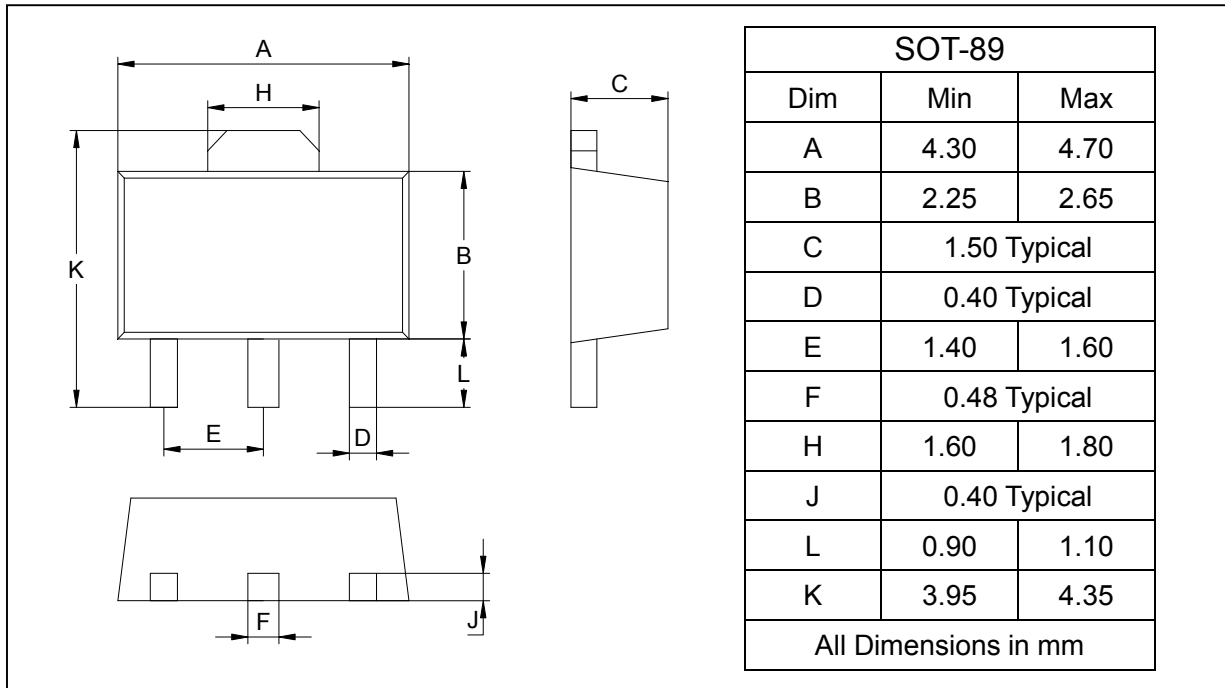
Medium power transistor(80V,0.7A)

2SD1767

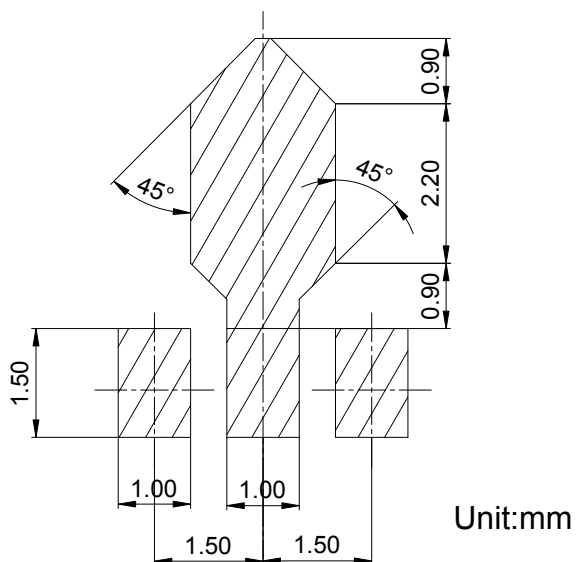
PACKAGE OUTLINE

Plastic surface mounted package

SOT-89



SOLDERING FOOTPRINT



PACKAGE INFORMATION

Device	Package	Shipping
2SD1767	SOT-89	1000/Tape&Reel