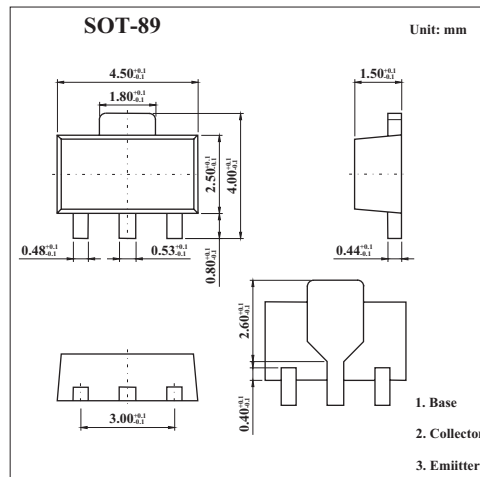


# 2SD1766

## Features

- Low  $V_{CE(sat)}$ ,  $V_{CE(sat)} = 0.5V$  (typical)  
( $I_C = 2A$ ,  $I_B = 0.2A$ ).



## Absolute Maximum Ratings $T_a = 25^\circ C$

Parameter	Symbol	Rating	Unit
Collector-base voltage	$V_{CB0}$	40	V
Collector-emitter voltage	$V_{CE0}$	32	V
Emitter-base voltage	$V_{EB0}$	5	V
Collector current	$I_C$	2	A
	$I_C$ (Pulse) *1	2.5	A
Collector power dissipation	$P_C$	0.5	W
	$P_C$ *2	2	W
Junction temperature	$T_j$	150	$^\circ C$
Storage temperature	$T_{stg}$	-55 to +150	$^\circ C$

\*1.  $P_w=20ms$ .

\*2.  $40 \times 40 \times 0.7mm$  Ceramic board.

## Electrical Characteristics $T_a = 25^\circ C$

Parameter	Symbol	Testconditions	Min	Typ	Max	Unit
Collector-base voltage	$BV_{CB0}$	$I_C=50\mu A$	40			V
Collector-emitter voltage	$BV_{CE0}$	$I_C=1mA$	32			V
Emitter-base voltage	$BV_{EB0}$	$I_E=50\mu A$	5			V
Collector cutoff current	$I_{CBO}$	$V_{CB}=20V$			1	$\mu A$
Emitter cutoff current	$I_{EBO}$	$V_{EB}=4V$			1	$\mu A$
Forward current transfer ratio	$h_{FE}$	$V_{CE}=3V, I_C=0.5A$	82		390	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=2A, I_B=0.2A$		0.5	0.8	V
Transition frequency	$f_T$	$V_{CE}=5V, I_E=-500mA, f=100MHz$		100		MHz
Output capacitance	$C_{ob}$	$V_{CB}=10V, I_E=0A, f=1MHz$		30		pF

## $h_{FE}$ Classification

Marking	DB		
	P	Q	R
$h_{FE}$	82~180	120~270	180~390