



DESCRIPTION

The 2SD1766 is available in SOT-89 package

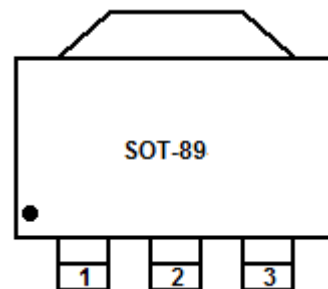
FEATURES

- Low $V_{CE(sat)}$, $V_{CE(sat)} = 0.5V$ (typical)
($I_C = 2A$, $I_B = 0.2A$).
- Available in SOT-89 package

ORDERING INFORMATION

Package Type	Part Number
SOT-89	2SD1766P
	2SD1766Q
	2SD1766R
Note	SPQ: 1,000pcs/Reel
AiT provides all RoHS Compliant Products	

PIN DESCRIPTION



1. BASE
2. COLLECTOR
3. EMITTER



ABSOLUTE MAXIMUM RATINGS

$T_A=25^{\circ}\text{C}$

V_{CBO} , Collector-Base Voltage	40V
V_{CEO} , Collector-Emitter Voltage	32V
V_{EBO} , Emitter-Base Voltage	5V
I_{C} , Collector Current	2A
$I_{\text{C}}(\text{Pulse})^{\text{NOTE1}}$, Collector Current	2.5A
P_{C} , Collector Power Dissipation	0.5W
$P_{\text{C}}^{\text{NOTE2}}$, Collector Power Dissipation	2W
T_{J} , Junction Temperature	150°C
T_{STG} , Storage Temperature	-55°C ~150°C

Stresses above may cause permanent damage to the device. These are stress ratings only and functional operation of the device at these or any other conditions beyond those indicated in the Electrical Characteristics are not implied. Exposure to absolute maximum rating conditions for extended periods may affect device reliability.

NOTE1: $P_w=20\text{ms}$.

NOTE2: 40X40X 0.7mm Ceramic board.

ELECTRICAL CHARACTERISTICS

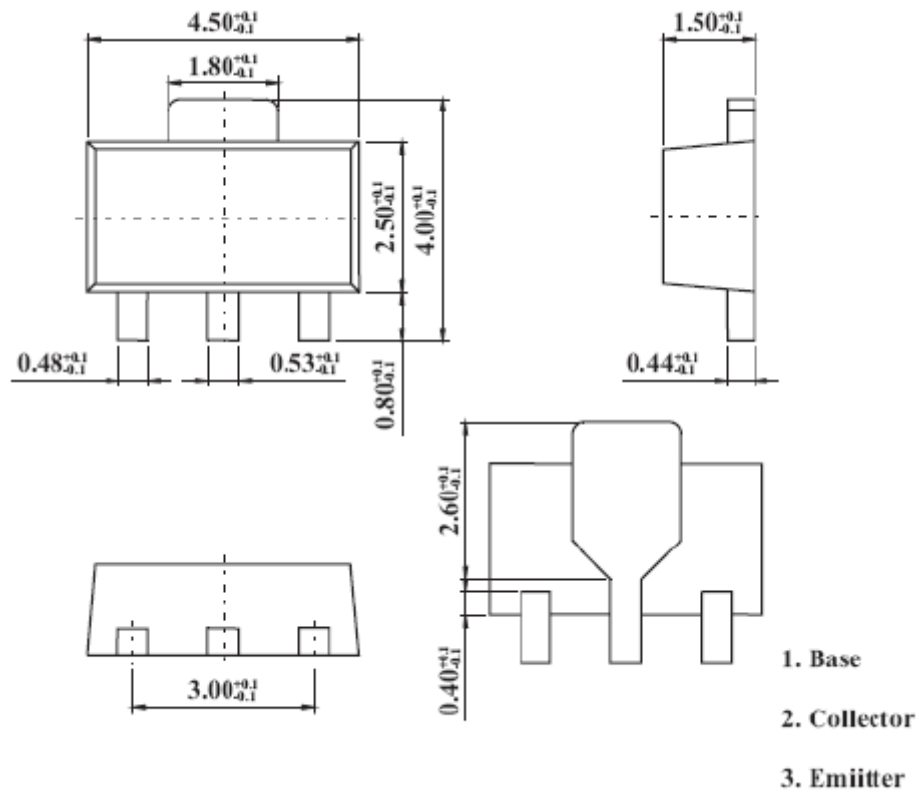
$T_A=25^{\circ}\text{C}$

Parameter	Symbol	Conditions	Min.	Typ.	Max.	Unit
Collector-Base Voltage	BV_{CBO}	$I_{\text{C}}=50\mu\text{A}$	40	-	-	V
Collector-Emitter Voltage	BV_{CEO}	$I_{\text{C}}=1\text{mA}$	32	-	-	V
Emitter-Base Voltage	BV_{EBO}	$I_{\text{E}}=50\mu\text{A}$	5	-	-	V
Collector Cutoff Current	I_{CBO}	$V_{\text{CB}}=20\text{V}$	-	-	1	μA
Emitter Cutoff Current	I_{EBO}	$V_{\text{EB}}=4\text{V}$	-	-	1	μA
DC Current Gain	h_{FE}	$V_{\text{CE}}=3\text{V}$, $I_{\text{C}}=0.5\text{A}$	P	82	-	180
			Q	120	-	270
			R	180	-	390
Collector-Emitter Saturation Voltage	$V_{\text{CE(sat)}}$	$I_{\text{C}}=2\text{A}$, $I_{\text{B}}=0.2\text{A}$	-	0.5	0.8	V
Transition Frequency	f_{T}	$V_{\text{CE}}=5\text{V}$, $I_{\text{E}}=-500\text{mA}$, $f=100\text{MHz}$	-	100	-	MHz
Output Capacitance	C_{ob}	$V_{\text{CB}}=10\text{V}$, $I_{\text{E}}=0\text{A}$, $f=1\text{MHz}$	-	30	-	pF



PACKAGE INFORMATION

Dimension in SOT-89 (Unit: mm)





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