

SOT-89 Plastic-Encapsulate Transistors

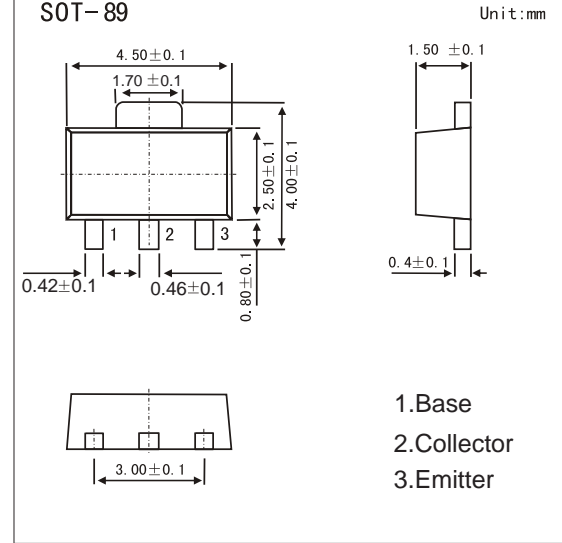
Features

- Small Flat Package
- Low Saturation Voltage
- Power Amplifier and Switching Application
- Complementary to KTC4379
- PNP Transistors

MECHANICAL DATA

- Case style: SOT-89 molded plastic
- Mounting position: any

SOT-89



MAXIMUM RATINGS AND CHARACTERISTICS

@ 25°C Ambient Temperature (unless otherwise noted)

Parameter	Symbol	Rating	Unit
Collector - Base Voltage	V _{CB0}	-50	V
Collector - Emitter Voltage	V _{CE0}	-50	
Emitter - Base Voltage	V _{EB0}	-5	
Collector Current - Continuous	I _c	-2	A
Collector Power Dissipation	P _c	500	mW
Thermal Resistance From Junction To Ambient	R _{θJA}	250	°C/W
Junction Temperature	T _J	150	°C
Storage Temperature range	T _{stg}	-55 to 150	

PACKAGE INFORMATION

Device	Package	Shipping
2SD1666	SOT-89	1000/Tape&Reel

Parameter	Symbol	Test Conditions	Min	Typ	Max	Unit
Collector- base breakdown voltage	V _{CB0}	I _c = -1 mA, I _E =0	-50			V
Collector- emitter breakdown voltage	V _{CE0}	I _c = -10 mA, I _B =0	-50			
Emitter - base breakdown voltage	V _{EB0}	I _E = -1 mA, I _c =0	-5			
Collector-base cut-off current	I _{CB0}	V _{CB} = -50V, I _E =0			-0.1	uA
Emitter cut-off current	I _{EB0}	V _{EB} = -5V, I _c =0			-0.1	
Collector-emitter saturation voltage	V _{CE(sat)}	I _c =-1 A, I _B =-20mA (Note.1)			-0.5	V
Base - emitter saturation voltage	V _{BE(sat)}	I _c =-1 A, I _B =-20mA (Note.1)			-1.2	
DC current gain	h _{FE}	V _{CE} = -2V, I _c = -500mA	70		240	
		V _{CE} = -2V, I _c = -1.5A	40			
Collector output capacitance	C _{ob}	V _{CB} = -10V, I _E = 0, f=1MHz			40	pF
Transition frequency	f _t	V _{CE} = -2V, I _c = -500mA		120		MHz

Note.1: Pulse test: pulse width ≤ 300 uS, duty cycle ≤ 2.0%.

Classification of h_{FE}(1)

Type	KTA1666-O	KTA1666-Y
Range	70-140	120-240
Marking	WO	WY

RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics

