

SOT-89 Plastic-Encapsulate Transistors

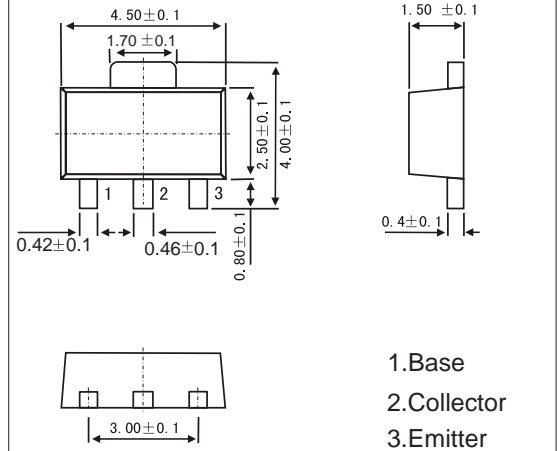
Features

- High Voltage : $V_{CE0} = -60V$ (Min.)
- High Current : I_C (Max.) = -1A.
- High Transition Frequency
- Complementary to KTC4378.
- 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}	-80	V
Collector - Emitter Voltage	V_{CE0}	-60	
Emitter - Base Voltage	V_{EB0}	-5	
Collector Current - Continuous	I_C	-1	A
Collector Current - Pulse	I_{CP}	-2	
Collector Power Dissipation	P_C	500	mW
		1	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}	$I_C = -100 \mu A, I_E = 0$	-80			V
Collector-emitter breakdown voltage	V_{CE0}	$I_C = -1 mA, I_B = 0$	-60			
Emitter-base breakdown voltage	V_{EB0}	$I_E = -100 \mu A, I_C = 0$	-5			
Collector-base cut-off current	I_{CBO}	$V_{CB} = -80V, I_E = 0$			-0.1	uA
Emitter cut-off current	I_{EBO}	$V_{EB} = -5V, I_C = 0$			-0.1	
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = -500mA, I_B = -50mA$			-0.7	V
Base-emitter saturation voltage	$V_{BE(sat)}$	$I_C = -500mA, I_B = -50mA$			-1.2	
DC current gain	h_{FE}	$V_{CE} = -2V, I_C = -50mA$	60		200	
		$V_{CE} = -2V, I_C = -1A$	30			
Collector output capacitance	C_{ob}	$V_{CB} = -10V, f = 1MHz$		12		pF
Transition frequency	f_T	$V_{CE} = -10V, I_C = -50mA$		150		MHz

Classification of $h_{FE}(1)$

Type	KTA1668-O	KTA1668-Y
Range	60-120	100-200
Marking	JO	JY

RATINGS AND CHARACTERISTIC CURVES

Typical Characteristics

