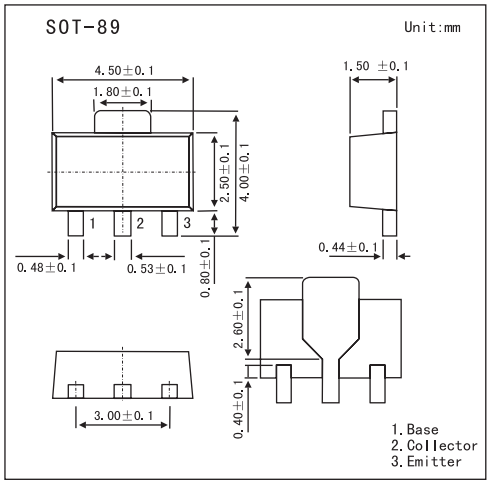
TY Semicondutor®

Product specification

2SD965



■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$
- Satisfactory operation performances at high efficiency with the lowvoltage power supply.

■ Absolute Maximum Ratings Ta = 25℃

Parameter	Symbol	Rating	Unit
Collector-base voltage	V_{CBO}	40	V
Collector-emitter voltage	V_{CEO}	20	V
Emitter-base voltage	V_{EBO}	7	V
Collector current	I_C	5	A
Peak collector current	I_{CP}	8	A
Collector power dissipation	P_C	0.75	W
Junction temperature	T_j	150	℃
Storage temperature	T_{stg}	-55 to +150	℃

■ Electrical Characteristics Ta = 25℃

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-emitter voltage	V_{CEO}	I_C = 1 mA, I_B = 0	20			V
Emitter-base voltage	V_{EBO}	I_E = 10 μA, I_C = 0	7			V
Collector-base cutoff current	I_{CBO}	V_{CB} = 10 V, I_E = 0			0.1	μA
Collector-emitter cutoff current	I_{CEO}	V_{CE} = 10 V, I_B = 0			1	μA
Emitter-base cutoff current	I_{EBO}	V_{EB} = 7V, I_C = 0			0.1	μA
DC current gain	h_{FE}	V_{CE} = 2 V, I_C = 0.5 A	230		600	
		V_{CE} = 2 V, I_C = 2A	150			
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 3A, I_B = 0.1 A			1	V
Collector output capacitance	C_{ob}	V_{CB} = 20 V, I_E = 0, f = 1 MHz			50	pF
Transition frequency	f_T	V_{CB} = 6 V, I_E = -50 mA, f = 200 MHz		150		MHz

■ h_{FE} Classification

Marking	Q	R
h_{FE}	230～380	340～600