

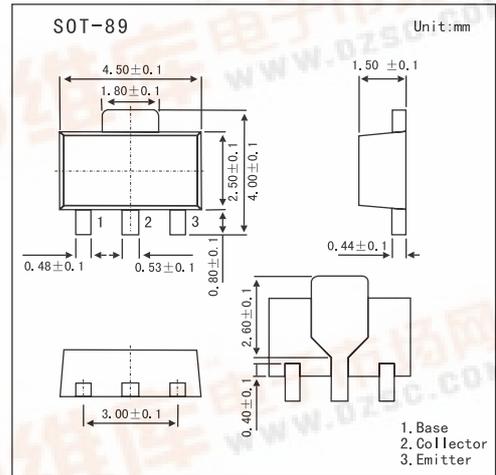
SMD Type Transistors

Power Transistor

2SD1963

Features

- Low saturation voltage.
- Excellent DC current gain characteristics.



Absolute Maximum Ratings Ta = 25°C

Parameter	Symbol	Rating	Unit
Collector-base voltage	V _{CB0}	50	V
Collector-emitter voltage	V _{CEO}	20	V
Emitter-base voltage	V _{EB0}	6	V
Collector current	I _c	3	A
Collector power dissipation	P _c	0.5	W
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

Electrical Characteristics Ta = 25°C

Parameter	Symbol	Testconditons	Min	Typ	Max	Unit
Collector-base breakdown voltage	BV _{CB0}	I _c =50μA	50			V
Collector-emitter breakdown voltage	BV _{CEO}	I _c =1mA	20			V
Emitter-base breakdown voltage	BV _{EB0}	I _E =50μA	6			V
Collector cutoff current	I _{cBO}	V _{CB} =40V			0.5	μA
Emitter cutoff current	I _{EBO}	V _{EB} =5V			0.5	μA
DC current transfer ratio	h _{FE}	V _{CE} =2V, I _c =0.5A	180		560	
Collector-emitter saturation voltage	V _{CE(sat)}	I _c =1.5 A, I _B =0.15A		0.25	0.45	V
Output capacitance	f _T	V _{CE} =6V, I _E =-50mA, f=100MHz		150		MHz
Transition frequency	C _{ob}	V _{CB} =20V, I _E =0A, f=1MHz		35		pF

hFE Classification

Marking	DG	
	R	S
hFE	180~390	270~560

