

2SB643, 2SB644

Silicon PNP epitaxial planer type

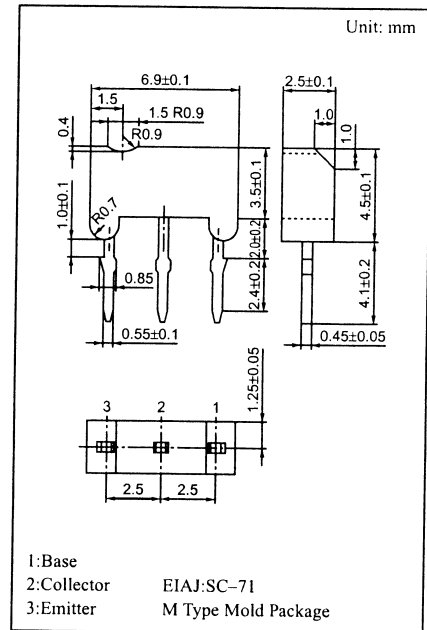
For low-power general amplification
 Complementary to 2SD638 and 2SD639

Features

- M type package allowing easy automatic and manual insertion as well as stand-alone fixing to the printed circuit board.

Absolute Maximum Ratings (Ta=25°C)

Parameter	Symbol	Ratings	Unit	
Collector to base voltage	2SB643 2SB644	V _{CB0}	-30 -60	V
Collector to emitter voltage	2SB643 2SB644	V _{CEO}	-25 -50	V
Emitter to base voltage	V _{EBO}	-7	V	
Peak collector current	I _{CP}	-1	A	
Collector current	I _C	-0.5	A	
Collector power dissipation	P _C	600	mW	
Junction temperature	T _j	150	°C	
Storage temperature	T _{stg}	-55 ~ +150	°C	



Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions	min	typ	max	Unit
Collector cutoff current	I _{CB0}	V _{CB} = -20V, I _E = 0			-100	nA
	I _{CEO}	V _{CE} = -20V, I _B = 0			-1	μA
Collector to base voltage	V _{CB0}	I _C = -10μA, I _E = 0	-30			V
			-60			
Collector to emitter voltage	V _{CEO}	I _C = -2mA, I _B = 0	-25			V
			-50			
Emitter to base voltage	V _{EBO}	I _E = -10μA, I _C = 0	-7			V
Forward current transfer ratio	h _{FE1} *1	V _{CE} = -10V, I _C = -150mA*2	85		340	
	h _{FE2}	V _{CE} = -10V, I _C = -500mA*2	40	90		
Collector to emitter saturation voltage	V _{CE(sat)}	I _C = -300mA, I _B = -30mA*2		-0.35	-0.6	V
Transition frequency	f _T	V _{CB} = -10V, I _E = 10mA, f = 200MHz		200		MHz
Collector output capacitance	C _{ob}	V _{CB} = -10V, I _E = 0, f = 1MHz		6	15	pF

*2 Pulse measurement

*1 h_{FE1} Rank classification

Rank	Q	R	S
h _{FE1}	85 ~ 170	120 ~ 240	170 ~ 340

