20 STERN AVE.

SPRINGFIELD, NEW JERSEY 07081

U.S.A.

2SB643, 2SB644

Silicon PNP epitaxial planer type

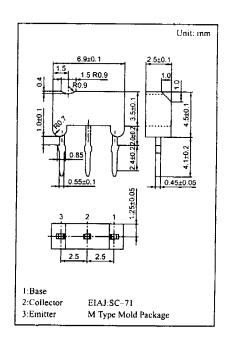
For low-power general amplification Complementary to 2SD638 and 2SD639

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	llector to 2SB643		-30		
base voltage	2SB644	V _{CBO}	-60	V	
Collector to	2SB643		-25		
emitter voltage	2SB644	V _{CEO}	-50	V	
Emitter to base voltage		V _{EBO}	-7	V	
Peak collector current		l _{CP}	-1	Α	
Collector current		l _C	- 0.5	A	
Collector power dissipation		P _C	600	mW	
Junction temperature		Tj	150	,C	
Storage temperature		T _{stg}	−55 ~ +150	,c	



TELEPHONE: (973) 376-2922

(212) 227-6005 FAX: (973) 376-8960

Electrical Characteristics (Ta=25°C)

Parameter		Symbol	Conditions	min	typ	max	Unit
Collector cutoff current		l _{CBO}	$V_{CB} = -20V, I_E = 0$			-100	nA
		I _{CEO}	$V_{CE} = -20V, I_{B} = 0$			-1	μА
Collector to base	2SB643			-30			v
voltage	2SB644	V _{Сво}	$I_{\rm C} = -10 \mu A, I_{\rm E} = 0$	-60			
Collector to emitter	2SB643	1		-25			1
voltage	2SB644 V _{CEO}		$I_C = -2mA$, $I_B = 0$	-50			1 V
Emitter to base voltage		V _{EBO}	$I_E = -10\mu A, I_C = 0$	-7	1 !		v
Forward current transfer ratio		h _{FE1} *1	$V_{CE} = -10V, I_{C} = -150mA^{*2}$	85		340	
		h _{FE2}	$V_{CE} = -10V, I_{C} = -500 \text{mA}^{+2}$	40	90		
Collector to emitter saturation voltage V _{CE(s)}		V _{CE(sat)}	$I_C = -300 \text{mA}, I_B = -30 \text{mA}^{*2}$		- 0.35	- 0.6	v
		f _T	$V_{CB} = -10V$, $I_E = 10mA$, $f = 200MHz$		200		MHz
Collector output capacitance C		C _{ob}	$V_{CB} = -10V, I_E = 0, f = IMHz$		6	15	pF

^{*2} Pulse measurement

^{*1}hFE1 Rank classification

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

NJ Semi-Conductors reserves the right to change test conditions, parameter limits and package dimensions without notice. Information furnished by NJ Semi-Conductors is believed to be both accurate and reliable at the time of going to press. However, NJ Semi-Conductors assumes no responsibility for any errors or omissions discovered in its use. NJ Semi-Conductors encourages customers to verify that datasheets are current before placing orders.

