# 2SA1816(Tentative)

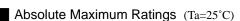
# Silicon PNP epitaxial planer type

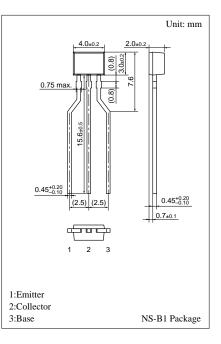
For low-frequency high breakdown voltage amplification

#### Features

• High collector to emitter voltage  $V_{CEO}$ .

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Symbol	Ratings	Unit
V <sub>CBO</sub>	-150	V
V <sub>CEO</sub>	-150	V
$V_{EBO}$	-5	V
I <sub>CP</sub>	-100	mA
I <sub>C</sub>	-50	mA
P <sub>C</sub>	300	mW
Tj	150	°C
T <sub>stg</sub>	-55 ~ +150	°C
	$V_{CBO}$ $V_{CEO}$ $V_{EBO}$ $I_{CP}$ $I_{C}$ $P_{C}$ $T_{j}$	$\begin{array}{c c c c c c c c c c c c c c c c c c c $





#### Electrical Characteristics (Ta=25°C)

Parameter	Symbol	Conditions min		typ	max	Unit
Collector cutoff current	I <sub>CBO</sub>	$V_{CB} = -100V, I_E = 0$			-1	μΑ
Collector to emitter voltage	V <sub>CEO</sub>	$I_{\rm C} = -100 \mu A, I_{\rm B} = 0$ -150				V
Emitter to base voltage	V <sub>EBO</sub>	$I_{\rm E} = -10\mu A, I_{\rm C} = 0$				V
Forward current transfer ratio	h <sub>FE</sub> <sup>*1</sup>	$V_{CE} = -5V, I_C = -10mA$	90		450	
Collector to emitter saturation voltage	V <sub>CE(sat)</sub>	$I_{\rm C} = -30 {\rm mA}, I_{\rm B} = -3 {\rm mA}$			-1	V
Transition frequency	f <sub>T</sub>	$V_{CB} = -10V, I_E = 10mA, f = 200MHz$		200		MHz
Collector output capacitance	C <sub>ob</sub>	$V_{CB} = -10V, I_E = 0, f = 1MHz$			5	pF
Noise voltage	NV	$V_{CE} = -10V$ , $I_C = -1mA$ , $G_V = 80dB$ $R_{\sigma} = 100k\Omega$ , Function = FLAT		150		mV

\*1hFE Rank classification

Rank	Q	R	S	Т
h <sub>FE</sub>	90 ~ 155	130 ~ 220	185 ~ 330	260 ~ 450

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