

DESCRIPTION The 2SA915 is designed for use in driver stages of audio frequency amplifiers.

- FEATURES**
- High Total Power Dissipation and High Breakdown Voltage:
1.0 W at 25 °C Ambient Temperature/ $V_{CE0} = -120$ V
 - Complementary to the NEC-2SC1940 NPN Transistor.

ABSOLUTE MAXIMUM RATINGS

Maximum Temperatures

Storage Temperature -55 to +150 °C

Junction Temperature +150 °C Maximum

Maximum Power Dissipation ($T_a = 25$ °C)

Total Power Dissipation 1.0 W

Thermal Resistance(Junction to Ambient) . . . 125 °C/W

Maximum Voltages and Currents ($T_a = 25$ °C)

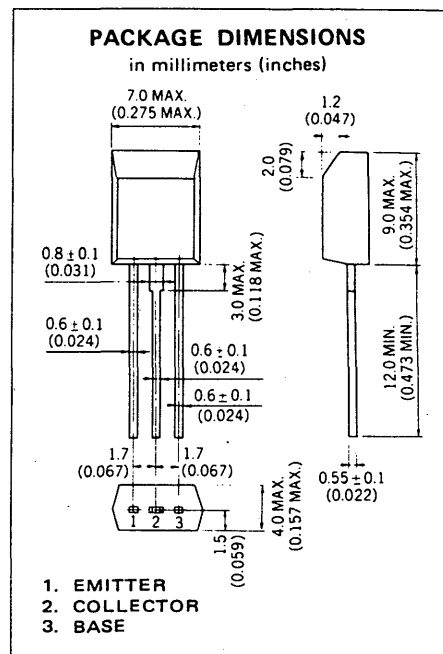
V_{CB0} Collector to Base Voltage -120 V

V_{CE0} Collector to Emitter Voltage -120 V

V_{EB0} Emitter to Base Voltage -5.0 V

I_C Collector Current -50 mA

I_B Base Current -10 mA



ELECTRICAL CHARACTERISTICS ($T_a = 25$ °C)

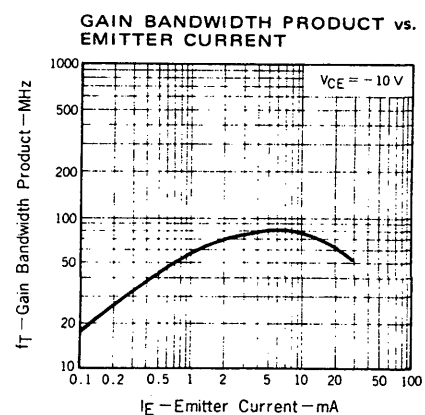
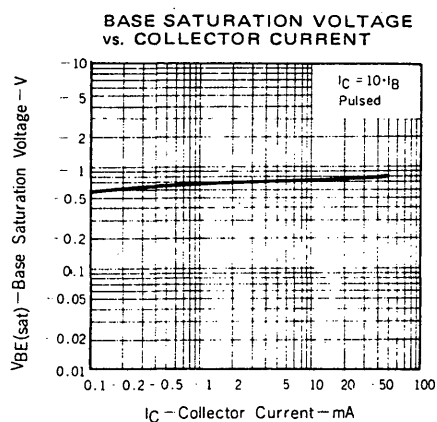
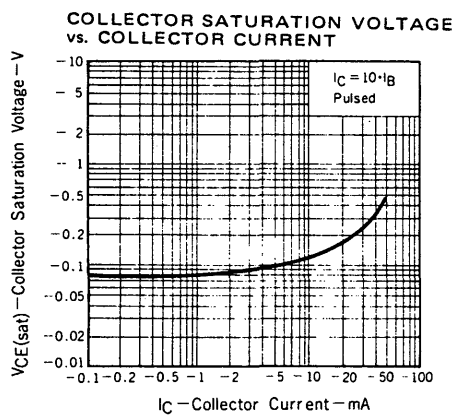
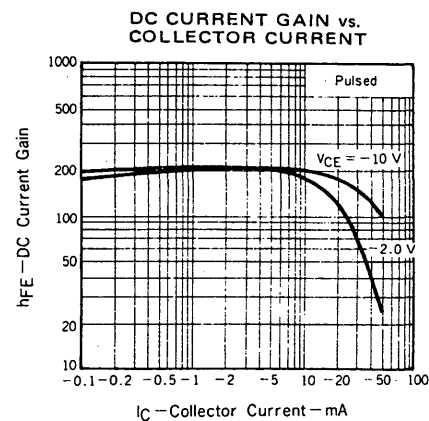
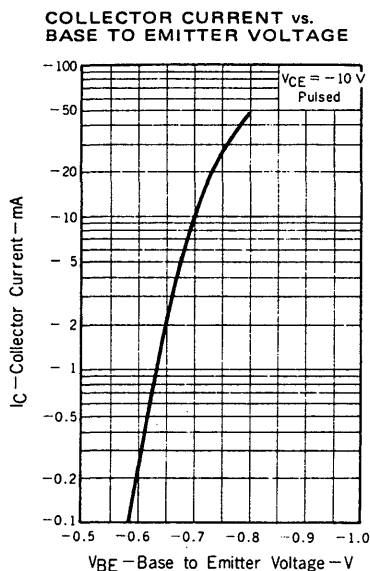
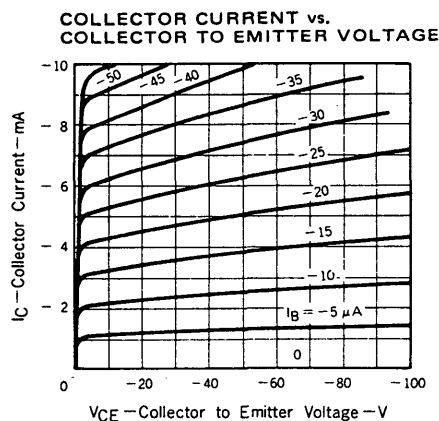
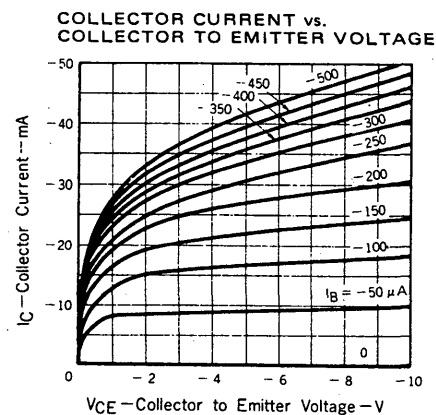
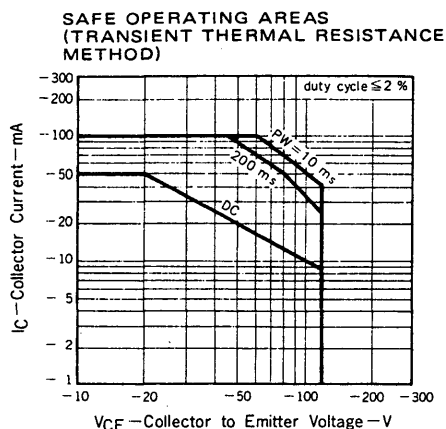
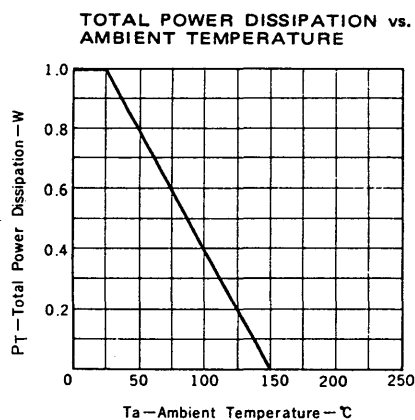
SYMBOL	CHARACTERISTIC	MIN.	TYP.	MAX.	UNIT	TEST CONDITIONS
h_{FE1}	DC Current Gain	90	200	400	—	$V_{CE} = -10$ V, $I_C = -10$ mA
h_{FE2}	DC Current Gain	50	200		—	$V_{CE} = -10$ V, $I_C = -1.0$ mA
f_T	Gain Bandwidth Product	50	80		MHz	$V_{CE} = -10$ V, $I_E = 10$ mA
C_{ob}	Output Capacitance		2.5	3.5	pF	$V_{CB} = -10$ V, $I_E = 0$, $f = 1.0$ MHz
I_{CBO}	Collector Cutoff Current			-100	nA	$V_{CB} = -120$ V, $I_E = 0$
I_{EBO}	Emitter Cutoff Current			-100	nA	$V_{EB} = -5.0$ V, $I_C = 0$
V_{BE}	Base to Emitter Voltage	-650	-695	-750	mV	$V_{CE} = -10$ V, $I_C = -10$ mA
$V_{CE(sat)}$	Collector Saturation Voltage		-0.18	-0.6	V	$I_C = -20$ mA, $I_B = -2.0$ mA
$V_{BE(sat)}$	Base Saturation Voltage		-0.79	-1.0	V	$I_C = -20$ mA, $I_B = -2.0$ mA

Classification of h_{FE1}

Rank	M	L	K
Range	90 - 180	135 - 270	200 - 400

h_{FE1} Test Conditions: $V_{CE} = -10$ V, $I_C = -10$ mA

TYPICAL CHARACTERISTICS ($T_a=25^\circ\text{C}$ unless otherwise noted)



INPUT AND OUTPUT CAPACITANCE
vs. REVERSE VOLTAGE