

RN1107FV,RN1108FV,RN1109FV

Unit: mm

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- The drawing shows the VESM package with the following dimensions:
- Top View:**
 - Overall width: 1.2 ± 0.05
 - Distance from left edge to emitter center: 0.8 ± 0.05
 - Distance from emitter center to base center: 0.4
 - Distance from base center to collector center: 0.4
 - Distance from collector center to right edge: 0.80 ± 0.05
 - Distance from right edge to collector center: 0.22 ± 0.05
 - Distance from collector center to right edge: 0.32 ± 0.05
 - Side View:**
 - Overall height: 0.5 ± 0.05
 - Collector height: 0.13 ± 0.05
- Legend:
- 1.BASE
 - 2.EMITTER
 - 3.COLLECTOR
- | VESM | |
|---------|---|
| JEDEC | — |
| JEITA | — |
| TOSHIBA | — |

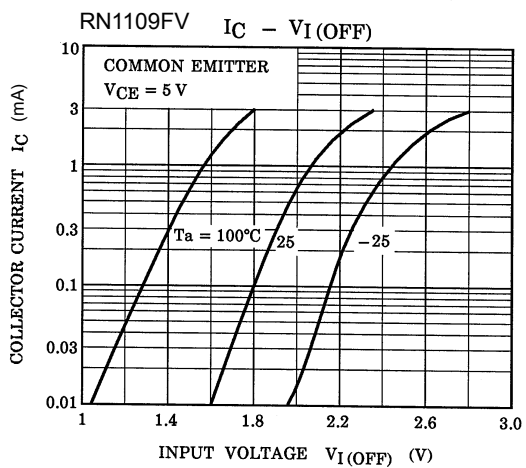
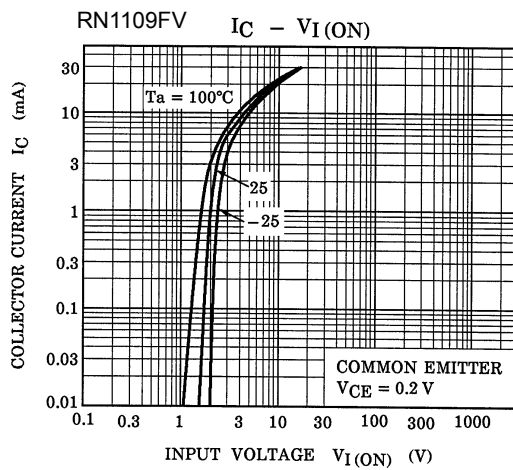
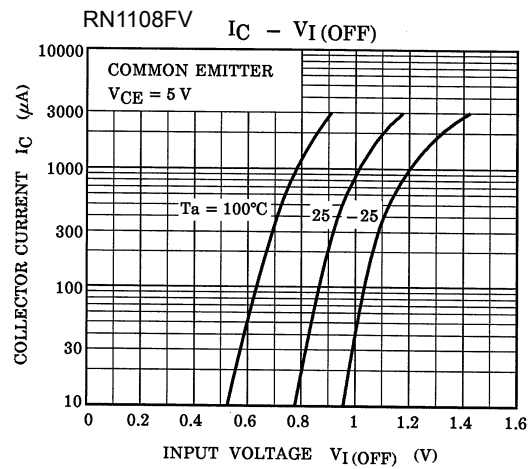
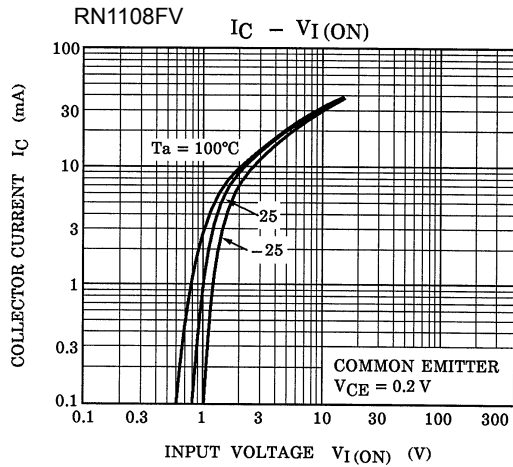
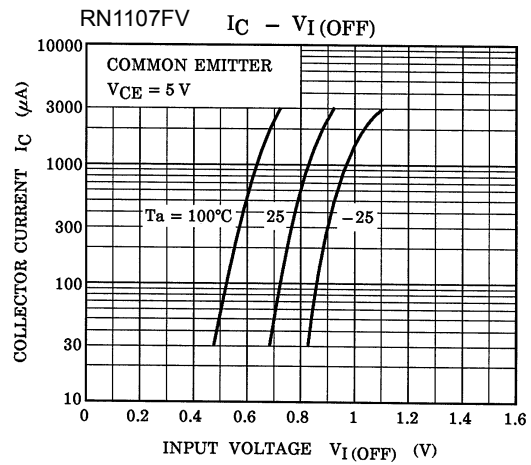
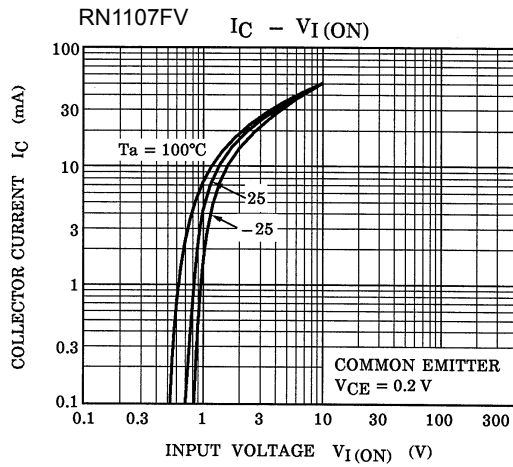
Type No.	R1 (kΩ)	R2 (kΩ)
RN1107FV	10	47
RN1108FV	22	47
RN1109FV	47	22

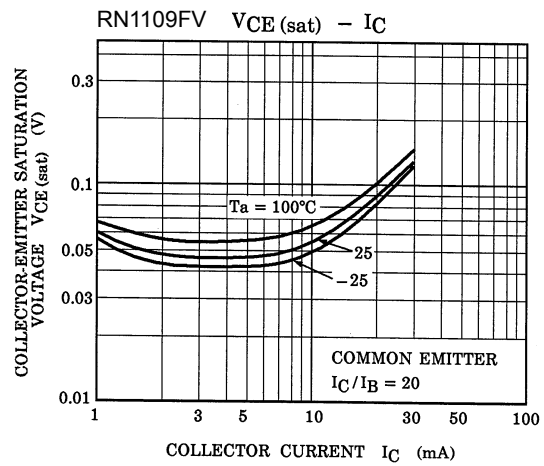
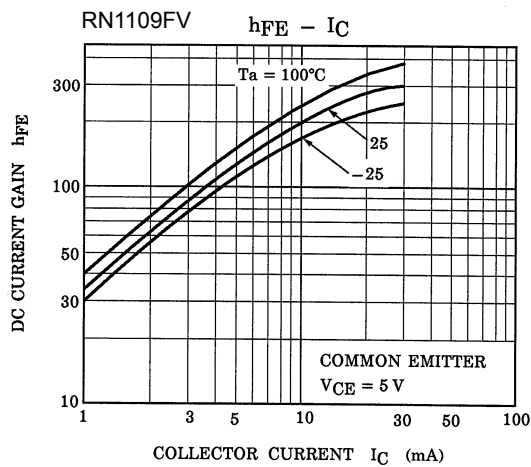
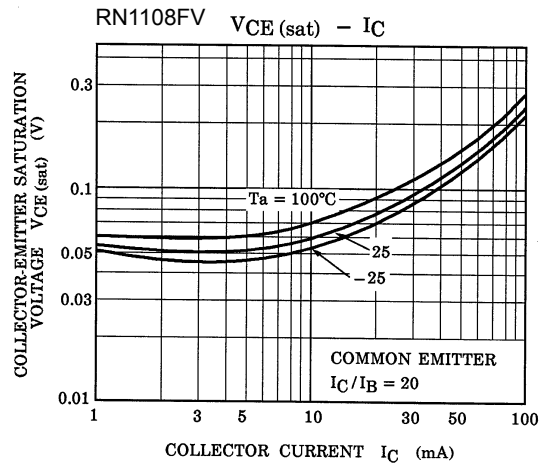
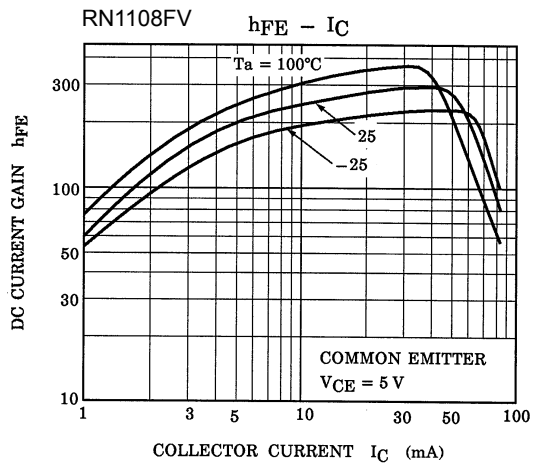
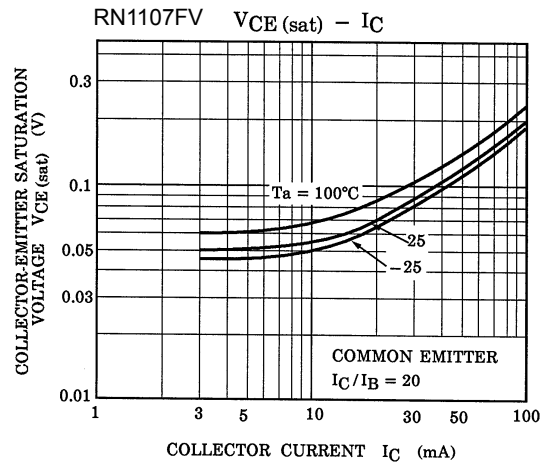
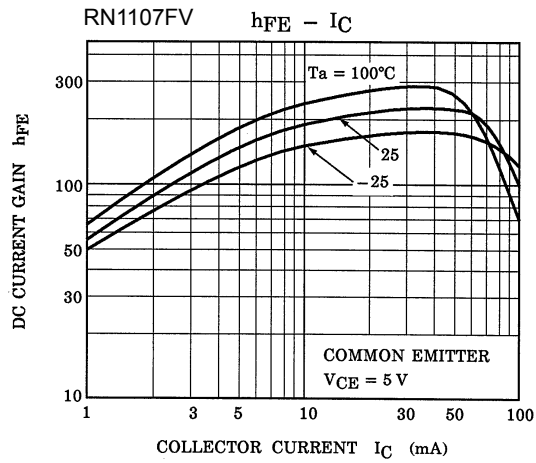
Weight: 0.0015g(Typ.)

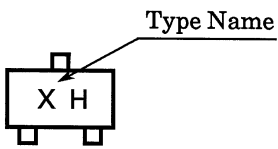
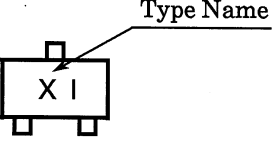
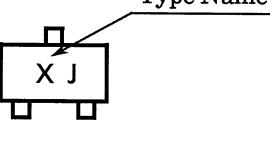
Characteristic		Symbol	Rating	Unit
Collector-base voltage	RN1107FV ~RN1109FV	V_{CBO}	50	V
Collector-emitter voltage		V_{CEO}	50	V
Emitter-base voltage	RN1107FV	V_{EBO}	6	V
	RN1108FV		7	
	RN1109FV		15	
Collector current	RN1107FV ~RN1109FV	I_C	100	mA
Collector power dissipation		$P_C(\text{Note})$	150	mW
Junction temperature		T_j	150	°C
Storage temperature range		T_{stg}	-55~150	°C

Electrical Characteristics (Ta = 25°C)

Characteristic		Symbol	Test Condition	Min	Typ.	Max	Unit
Collector cut-off current	RN1107FV~1109FV	I_{CBO}	$V_{CB} = 50V, I_E = 0$	—	—	100	nA
		I_{CEO}	$V_{CE} = 50V, I_B = 0$	—	—	500	nA
Emitter cut-off current	RN1107FV	I_{EBO}	$V_{EB} = 6V, I_C = 0$	0.081	—	0.15	mA
	RN1108FV		$V_{EB} = 7V, I_C = 0$	0.078	—	0.145	
	RN1109FV		$V_{EB} = 15V, I_C = 0$	0.167	—	0.311	
DC current gain	RN1107FV	h_{FE}	$V_{CE} = 5V, I_C = 10mA$	80	—	—	
	RN1108FV			80	—	—	
	RN1109FV			70	—	—	
Collector-emitter saturation voltage	RN1107FV~1109FV	$V_{CE(sat)}$	$I_C = 5mA, I_B = 0.25mA$	—	0.1	0.3	V
Input voltage (ON)	RN1107FV	$V_{I(ON)}$	$V_{CE} = 0.2V, I_C = 5mA$	0.7	—	1.8	V
	RN1108FV			1.0	—	2.6	
	RN1109FV			2.2	—	5.8	
Input voltage (OFF)	RN1107FV	$V_{I(OFF)}$	$V_{CE} = 5V, I_C = 0.1mA$	0.5	—	1.0	V
	RN1108FV			0.6	—	1.16	
	RN1109FV			1.5	—	2.6	
Translation frequency	RN1107FV~1109FV	f_T	$V_{CE} = 10V, I_C = 5mA$	—	250	—	MHz
Collector output capacitance	RN1107FV~1109FV	C_{ob}	$V_{CB} = 10V, I_E = 0, f = 1MHz$	—	3	—	pF
Input Resistor	RN1107FV	R1	—	7	10	13	kΩ
	RN1108FV			15.4	22	28.6	
	RN1109FV			32.9	47	61.1	
Resistor Ratio	RN1107FV	R1/R2	—	0.191	0.213	0.232	
	RN1108FV			0.421	0.468	0.515	
	RN1109FV			1.92	2.14	2.35	





Type Name	Marking
RN1107FV	
RN1108FV	
RN1109FV	

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