

TOSHIBA TRANSISTOR SILICON PNP EPITAXIAL TYPE (PCT PROCESS)

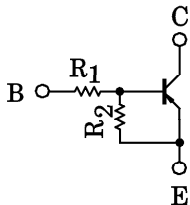
# RN2314, RN2315, RN2316, RN2317, RN2318

SWITCHING, INVERTER CIRCUIT, INTERFACE CIRCUIT  
AND DRIVER CIRCUIT APPLICATIONS.

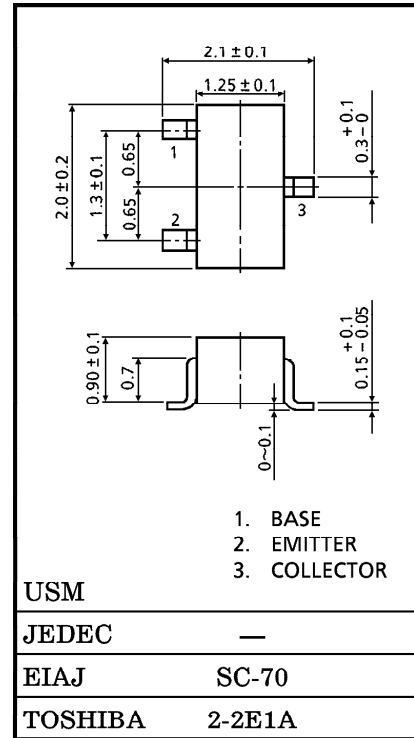
Unit in mm

- With Built-in Bias Resistors
- Simplify Circuit Design
- Reduce a Quantity of Parts and Manufacturing Process
- Complementary to RN1314~RN1318

EQUIVALENT CIRCUIT AND BIAS RESISTOR VALUES



TYPE No.	R <sub>1</sub> (kΩ)	R <sub>2</sub> (kΩ)
RN2314	1	10
RN2315	2.2	10
RN2316	4.7	10
RN2317	10	4.7
RN2318	47	10



Weight : 0.006g

MAXIMUM RATINGS (Ta = 25°C)

CHARACTERISTIC		SYMBOL	RATING	UNIT
Collector-Base Voltage	RN2314~2318	V <sub>CB0</sub>	-50	V
Collector-Emitter Voltage		V <sub>CE0</sub>	-50	V
Emitter-Base Voltage	RN2314	V <sub>EB0</sub>	-5	V
	RN2315		-6	
	RN2316		-7	
	RN2317		-15	
	RN2318		-25	
Collector Current	RN2314~2318	I <sub>C</sub>	-100	mA
Collector Power Dissipation		P <sub>C</sub>	100	mW
Junction Temperature		T <sub>j</sub>	150	°C
Storage Temperature Range		T <sub>stg</sub>	-55~150	°C

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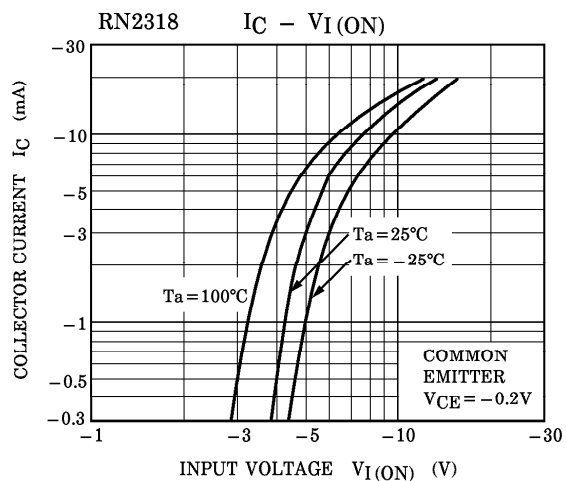
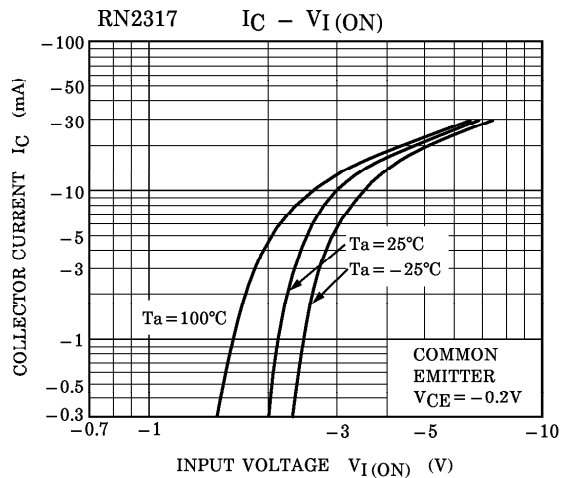
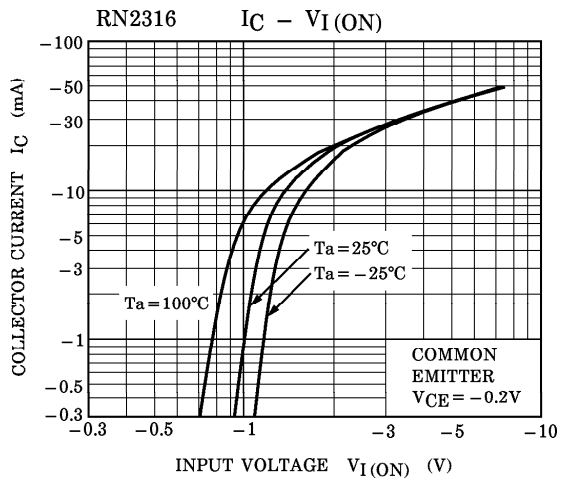
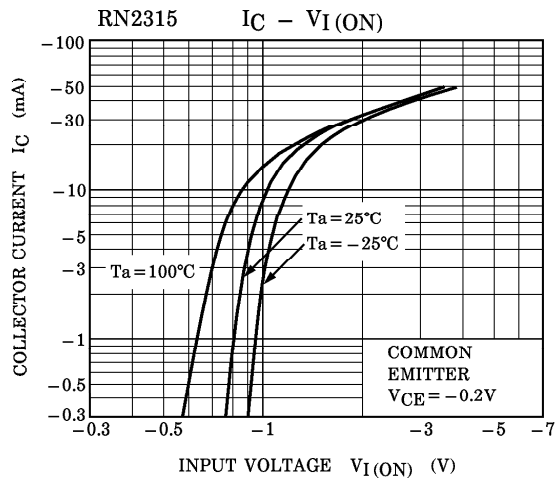
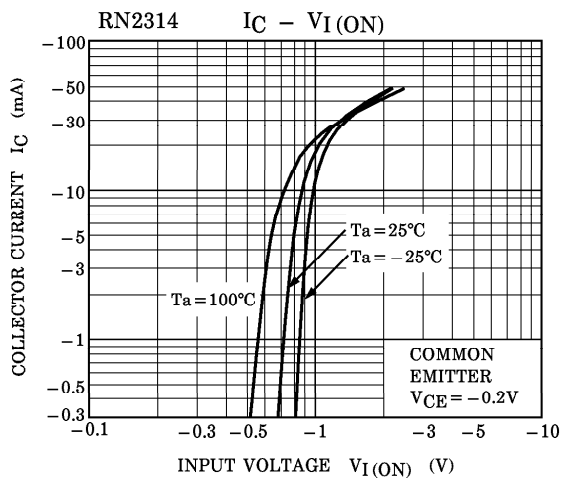
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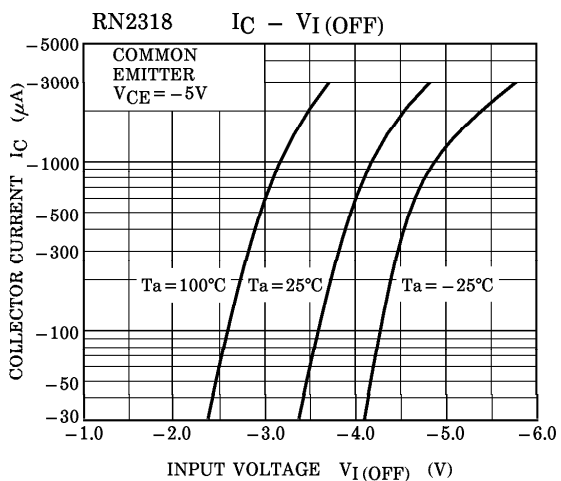
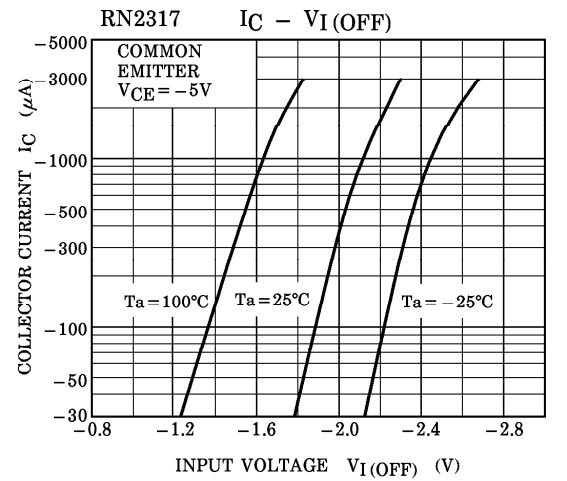
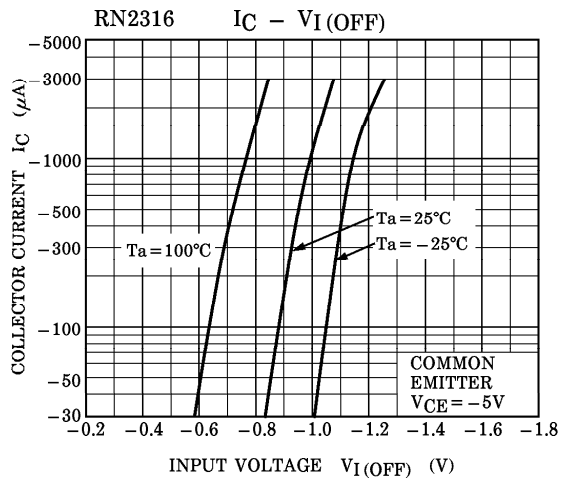
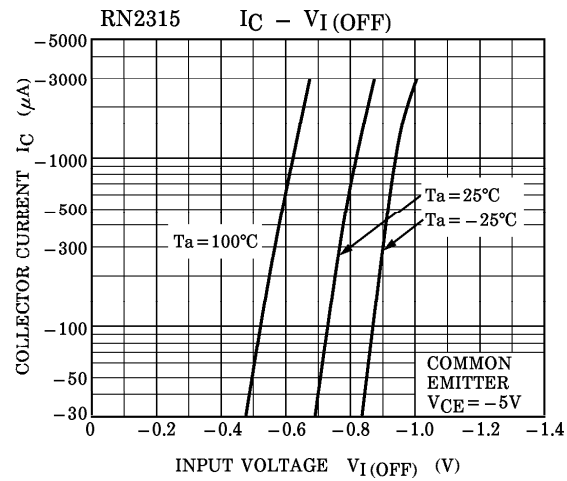
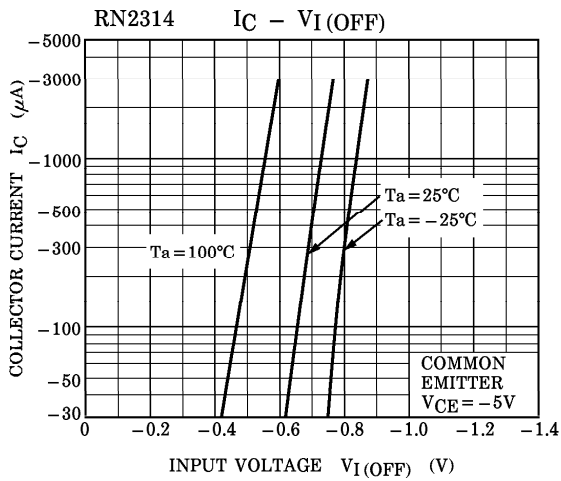
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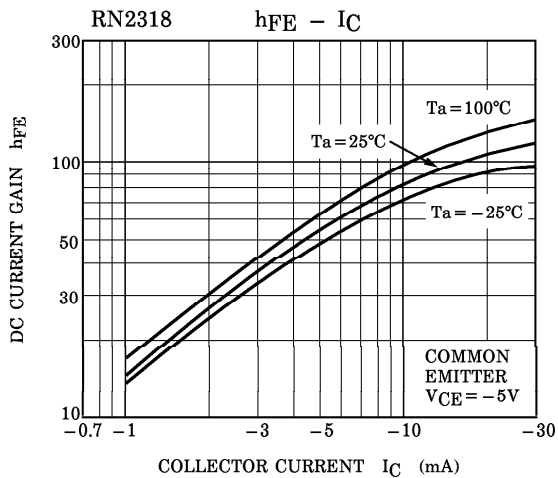
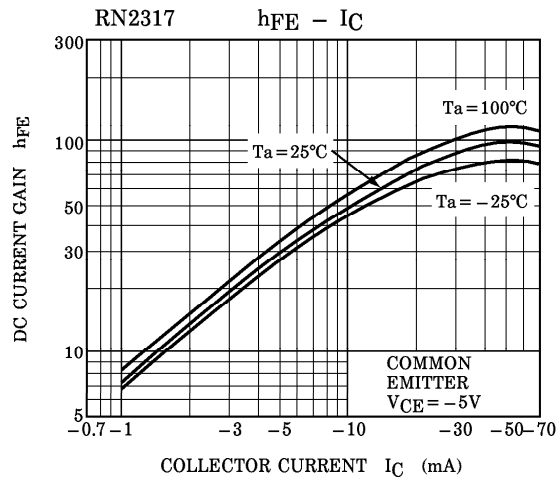
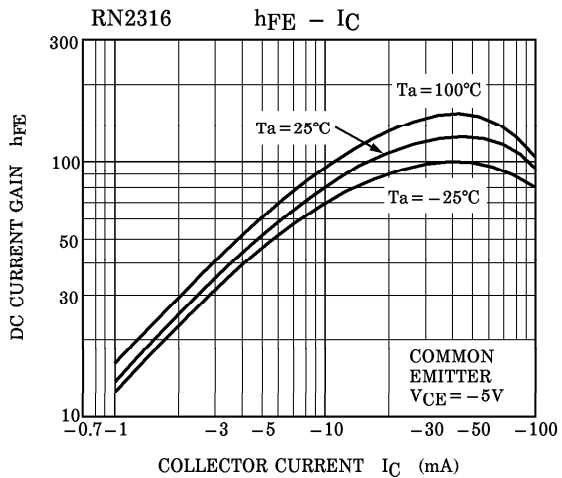
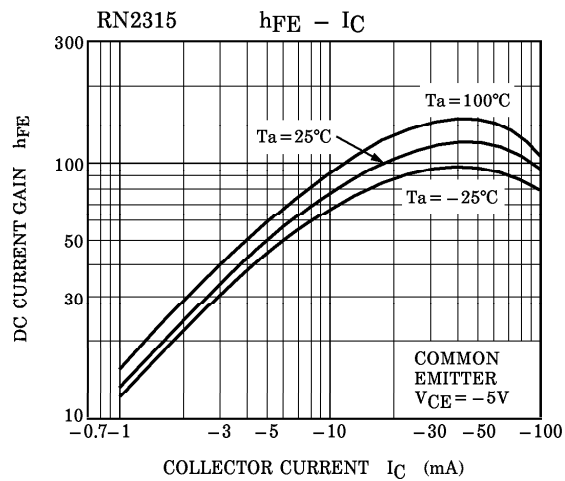
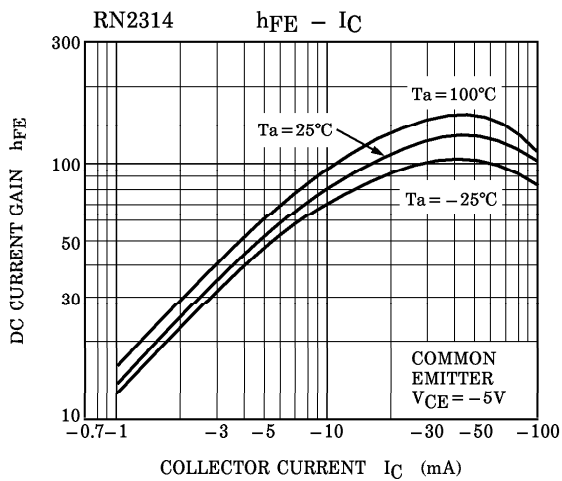
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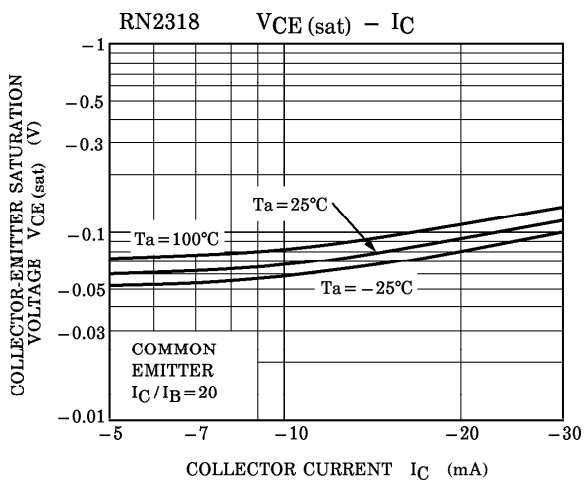
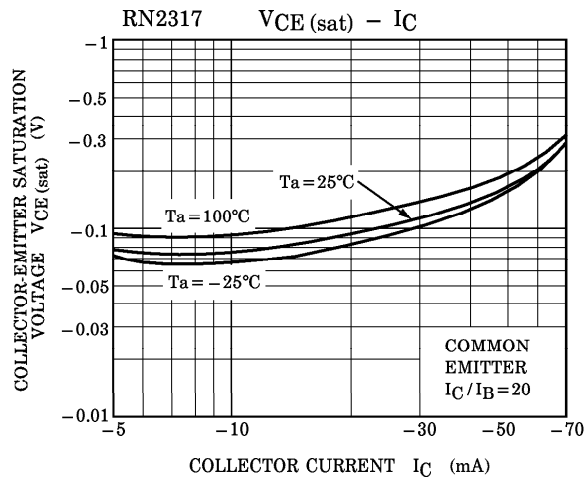
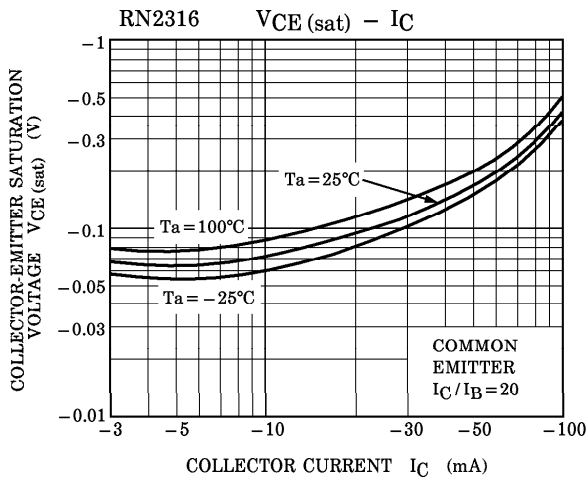
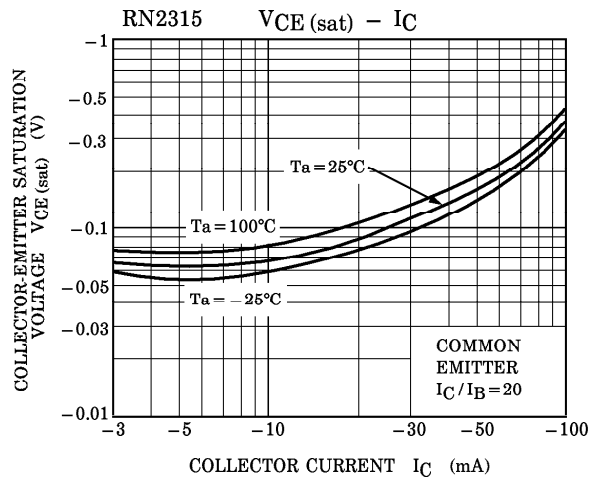
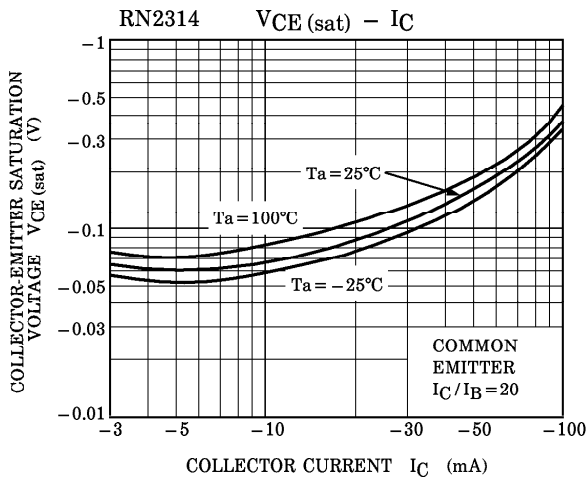
ELECTRICAL CHARACTERISTICS (Ta = 25°C)

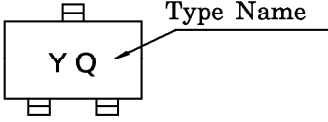
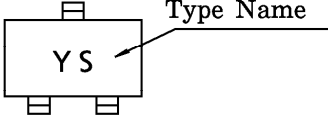
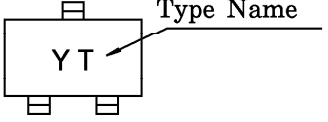
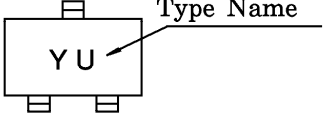
CHARACTERISTIC		SYMBOL	TEST CONDITION	MIN.	TYP.	MAX.	UNIT
Collector Cut-off Current	RN2314~2318	$I_{CBO}$	$V_{CB} = -50V, I_E = 0$	—	—	-100	nA
	RN2314~2318	$I_{CEO}$	$V_{CE} = -50V, I_B = 0$	—	—	-500	nA
Emitter Cut-off Current	RN2314	$I_{EBO}$	$V_{EB} = -5V, I_C = 0$	-0.35	—	-0.65	mA
	RN2315		$V_{EB} = -6V, I_C = 0$	-0.37	—	-0.71	
	RN2316		$V_{EB} = -7V, I_C = 0$	-0.36	—	-0.68	
	RN2317		$V_{EB} = -15V, I_C = 0$	-0.78	—	-1.46	
	RN2318		$V_{EB} = -25V, I_C = 0$	-0.33	—	-0.63	
DC Current Gain	RN2314~16, 18	$h_{FE}$	$V_{CE} = -5V, I_C = -10mA$	50	—	—	
	RN2317			30	—	—	
Collector-Emitter Saturation Voltage	RN2314~2318	$V_{CE(sat)}$	$I_C = -5mA, I_B = -0.25mA$	—	-0.1	-0.3	V
Input Voltage (ON)	RN2314	$V_{I(ON)}$	$V_{CE} = -0.2V, I_C = -5mA$	-0.5	—	-2.0	V
	RN2315			-0.6	—	-2.5	
	RN2316			-0.7	—	-2.5	
	RN2317			-1.5	—	-3.5	
	RN2318			-2.5	—	-10.0	
Input Voltage (OFF)	RN2314	$V_{I(OFF)}$	$V_{CE} = -5V, I_C = -0.1mA$	-0.3	—	-0.9	V
	RN2315			-0.3	—	-1.0	
	RN2316			-0.3	—	-1.1	
	RN2317			-0.3	—	-3.0	
	RN2318			-0.5	—	-5.7	
Transition Frequency	RN2314~2318	$f_T$	$V_{CE} = -10V, I_C = -5mA$	—	200	—	MHz
Collector Output Capacitance	RN2314~2318	$C_{ob}$	$V_{CB} = -10V, I_E = 0, f = 1MHz$	—	3.0	6.0	pF
Input Resistor	RN2314	$R_1$	—	0.7	1.0	1.3	kΩ
	RN2315			1.54	2.2	2.86	
	RN2316			3.29	4.7	6.11	
	RN2317			7.0	10.0	13.0	
	RN2318			32.9	47.0	61.1	
Resistor Ratio	RN2314	$R_1 / R_2$	—	—	0.1	—	
	RN2315			—	0.22	—	
	RN2316			—	0.47	—	
	RN2317			—	2.13	—	
	RN2318			—	4.7	—	









TYPE NAME	MARKING
RN2314	
RN2315	
RN2316	
RN2317	
RN2318	