

UNR5225, UNR5226

Silicon NPN epitaxial planar type

For muting

■ Features

- Low collector-emitter saturation voltage $V_{CE(sat)}$, optimum for the muting circuit
- The use with high current value is possible

■ Resistance by Part Number

	(R ₁)	(R ₂)
• UNR5225	10 kΩ	—
• UNR5226	4.7 kΩ	—

■ Absolute Maximum Ratings $T_a = 25^\circ\text{C}$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	30	V
Collector-emitter voltage (Base open)	V_{CEO}	20	V
Emitter-base voltage (Collector open)	V_{EBO}	5	V
Collector current	I_C	600	mA
Total power dissipation	P_T	150	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	-55 to +150	°C

■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	$I_C = 1 \mu\text{A}$, $I_E = 0$	30			V
Collector-emitter voltage (Base open)	V_{CEO}	$I_C = 1 \text{ mA}$, $I_B = 0$	20			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = 1 \mu\text{A}$, $I_C = 0$	5			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 30 \text{ V}$, $I_E = 0$			1	μA
Emitter-base cutoff current (Collector open)	I_{EBO}	$V_{EB} = 5 \text{ V}$, $I_C = 0$			1	μA
Forward current transfer ratio	h_{FE}	$V_{CE} = 5 \text{ V}$, $I_C = 50 \text{ mA}$	100		600	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C = 50 \text{ mA}$, $I_B = 2.5 \text{ mA}$			80	mV
Input resistance	UNR5226	R_1	-30%	4.7	+30%	kΩ
	UNR5225			10		
ON resistance *	UNR5226	R_{on}	$V_I = 7 \text{ V}$, $R_L = 1 \text{ k}\Omega$, $f = 1 \text{ kHz}$	0.95		Ω
	UNR5225			1.5		
Transition frequency	f_T	$V_{CB} = 10 \text{ V}$, $I_E = -50 \text{ mA}$, $f = 200 \text{ MHz}$		200		MHz

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

2. *: Refer to R_{on} measurement circuit

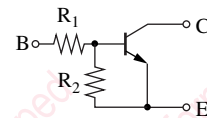
■ Package

- Code
SMini3-G1
- Pin Name
1: Base
2: Emitter
3: Collector

■ Marking Symbol

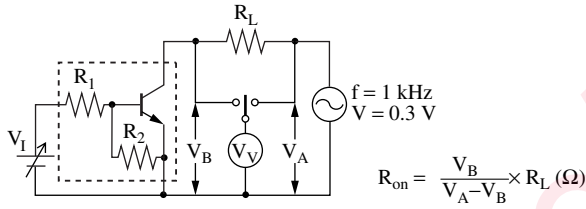
UNR5225: FZ
UNR5226: FY

■ Internal Connection

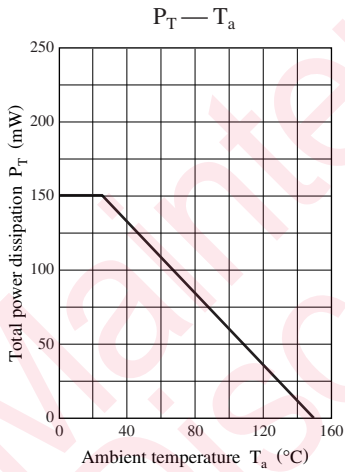


■ Electrical Characteristics (continued) $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

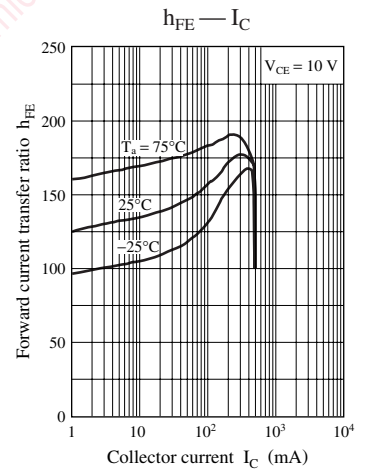
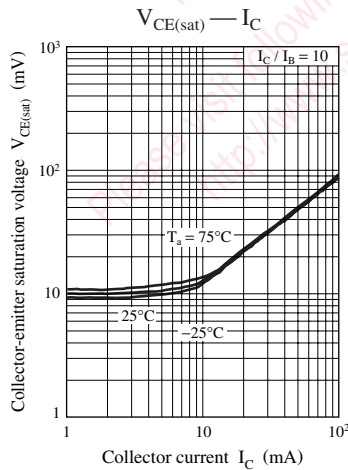
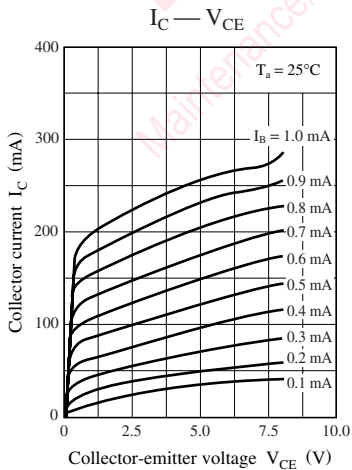
- R_{on} measurement circuit

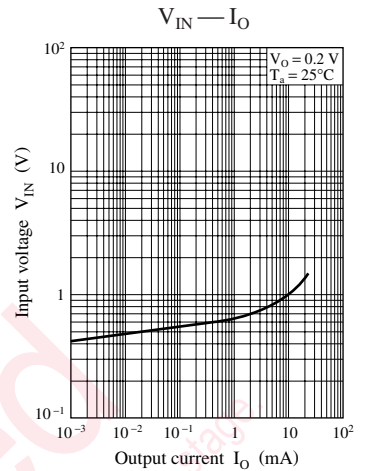
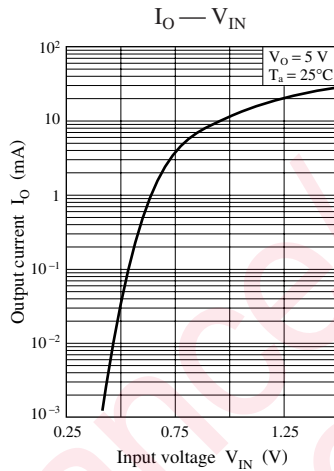
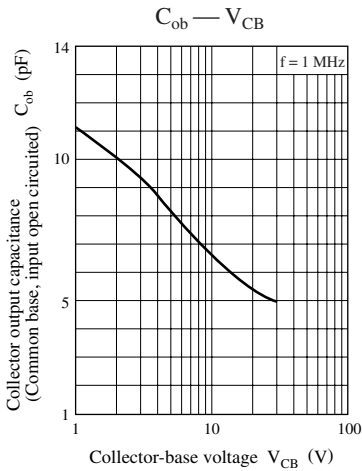


Common characteristics chart

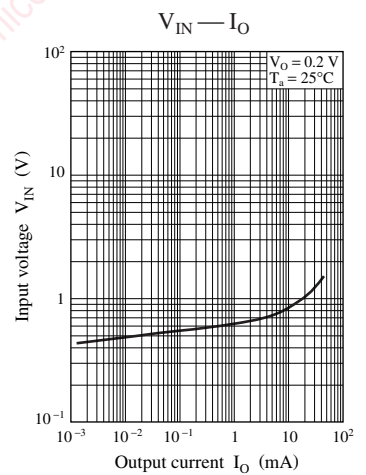
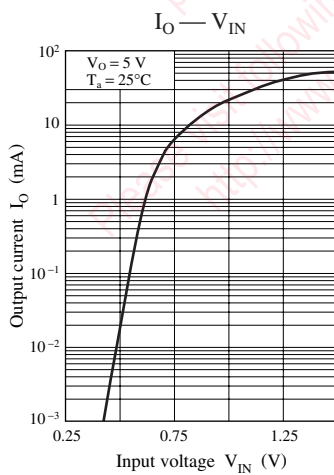
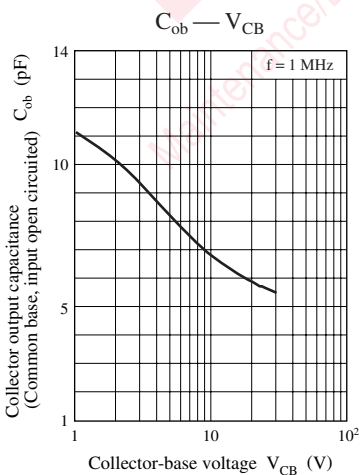
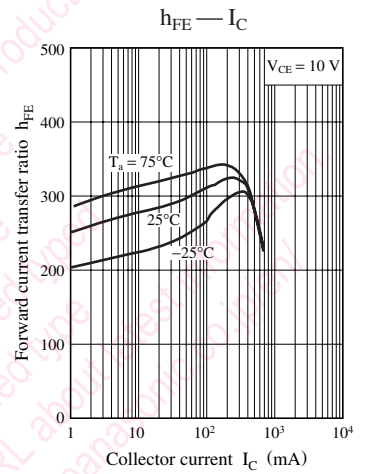
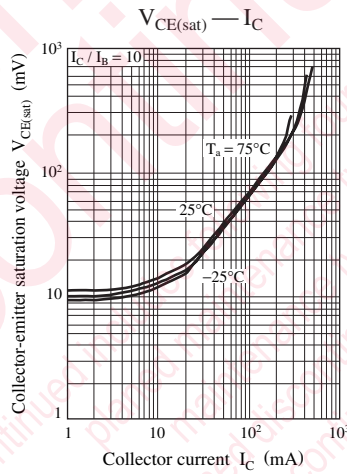
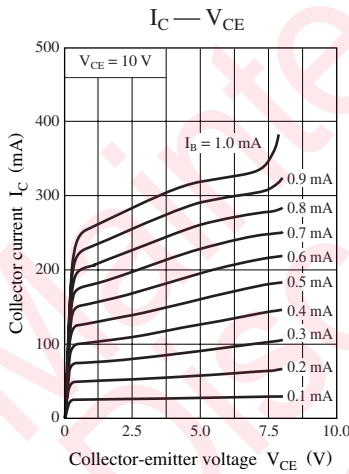


Characteristics charts of UNR5225



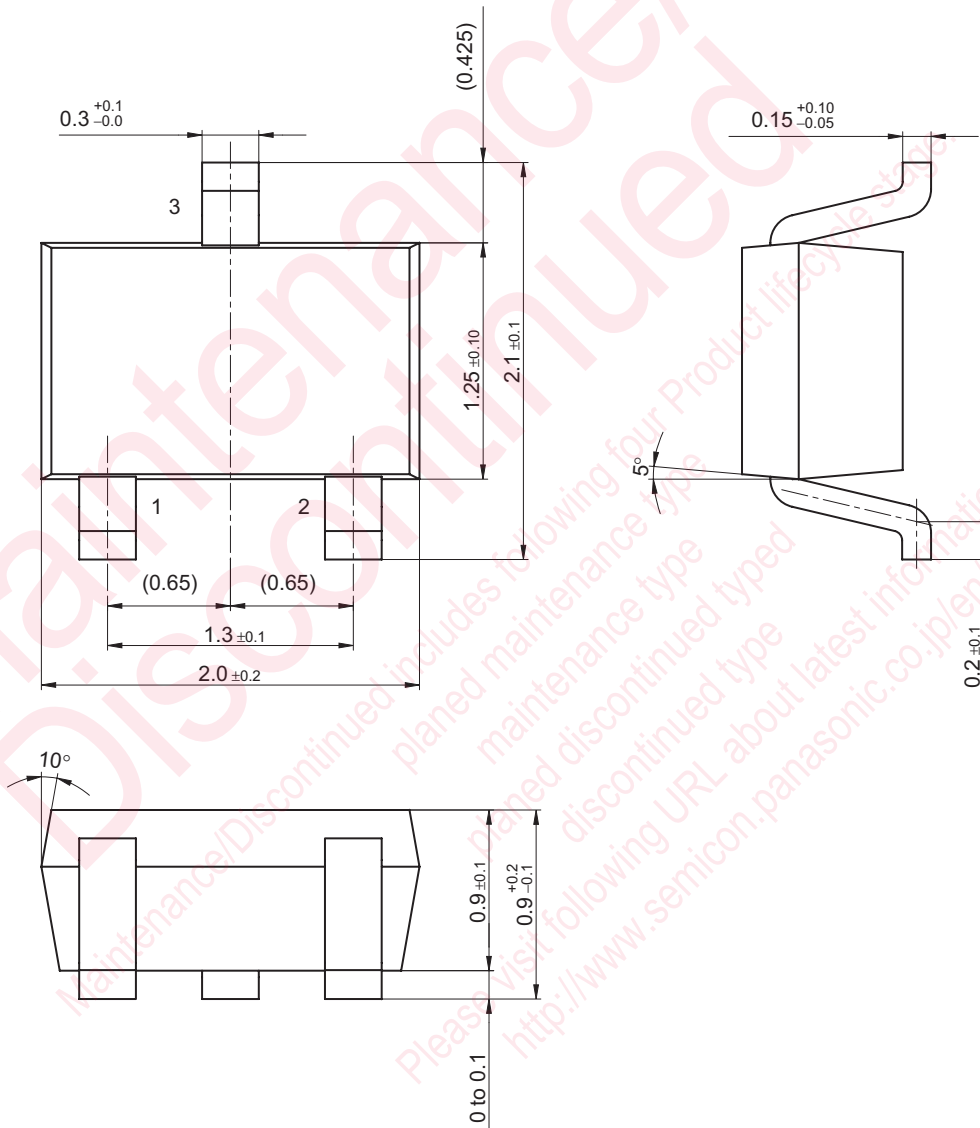


Characteristics charts of UNR5226



SMini3-G1

Unit: mm



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