

UNR5225/5226/5227

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

	Marking symbol	(R ₁)	(R ₂)
• UNR5225	FZ	10 kΩ	—
• UNR5226	FY	4.7 kΩ	—
• UNR5227	FW	6.8 kΩ	6.8 kΩ

■ Absolute Maximum Ratings T_a = 25°C

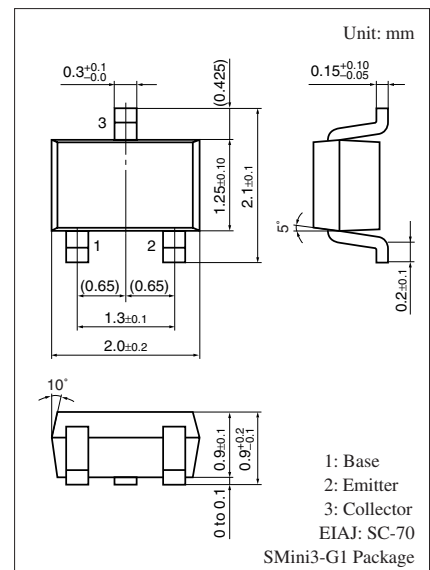
Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V _{CBO}	30	V
Collector-emitter voltage (Base open)	V _{CEO}	20	V
Emitter-base voltage (Collector open)	V _{EBO}	5	V
Collector current	I _C	600	mA
Total power dissipation	P _T	150	mW
Junction temperature	T _j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

■ Electrical Characteristics T_a = 25°C ± 3°C

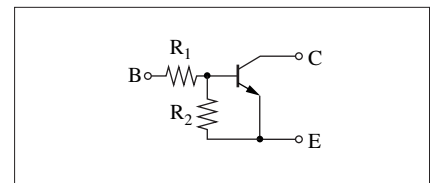
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V _{CBO}	I _C = 1 μA, I _E = 0	30			V
Collector-emitter voltage (Base open)	V _{CEO}	I _C = 1 mA, I _B = 0	20			V
Emitter-base voltage (Collector open)	V _{EBO}	I _E = 1 μA, I _C = 0	5			V
Collector-base cutoff current (Emitter open)	I _{CBO}	V _{CB} = 30 V, I _E = 0			1	μA
Emitter-base cutoff current (Collector open)	I _{EBO}	V _{EB} = 5 V, I _C = 0			1	μA
Forward current transfer ratio	UNR5227	V _{CE} = 5 V, I _C = 50 mA	70			—
	UNR5225/5226		100		600	
Collector-emitter saturation voltage	V _{CE(sat)}	I _C = 50 mA, I _B = 2.5 mA			80	mV
Input resistance	UNR5226	R ₁	-30%	4.7	+30%	kΩ
	UNR5227			6.8		
	UNR5225			10		
Resistance ratio	UNR5227	R ₁ /R ₂	0.8	1.0	1.2	—
ON resistance *	UNR5226	R _{on}		0.95		Ω
	UNR5227			1.1		
	UNR5225			1.5		
Transition frequency	f _T	V _{CB} = 10 V, I _E = -50 mA, f = 200 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

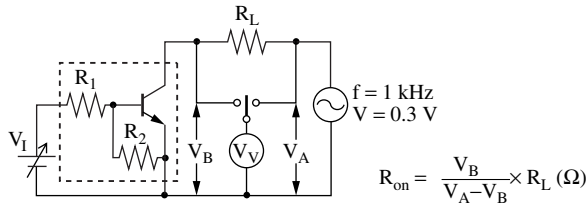


Internal Connection

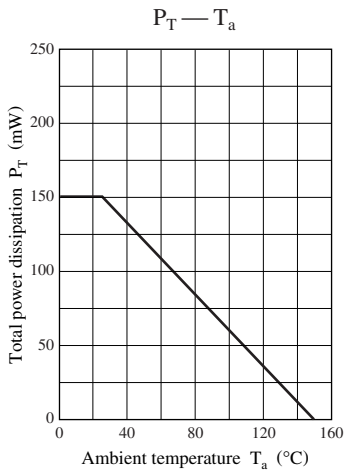


■ Electrical Characteristics (continued) $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}$

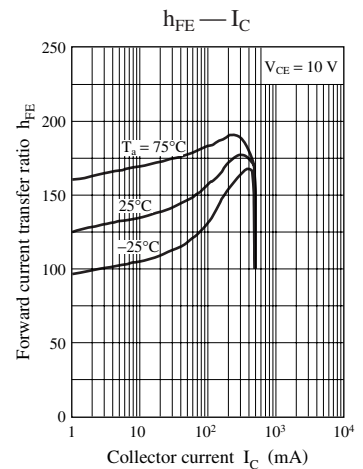
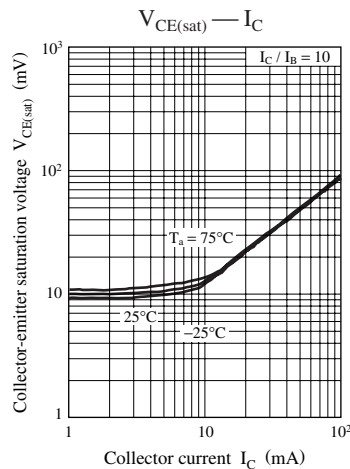
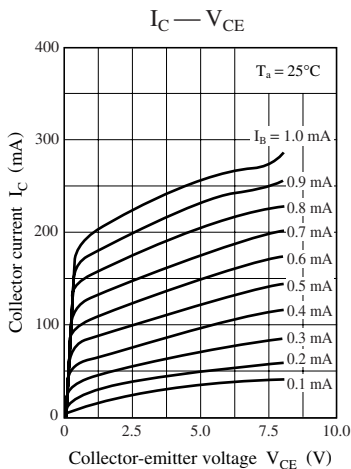
- R_{on} measurement circuit

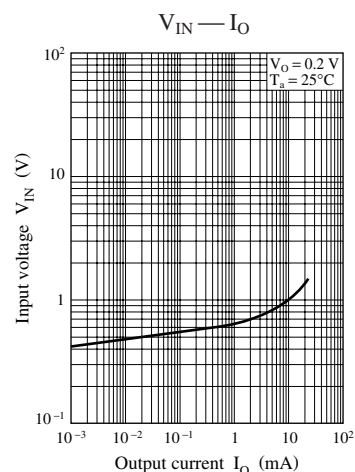
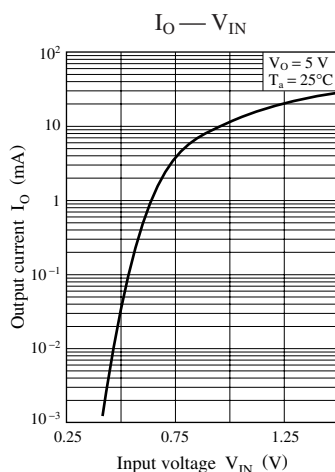
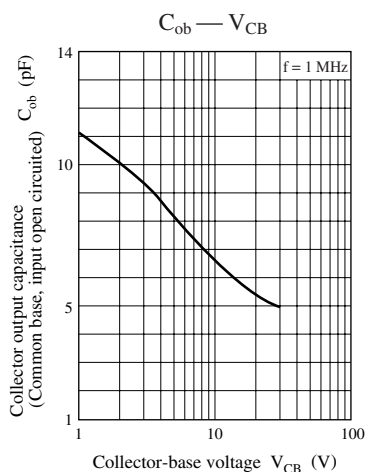


Common characteristics chart

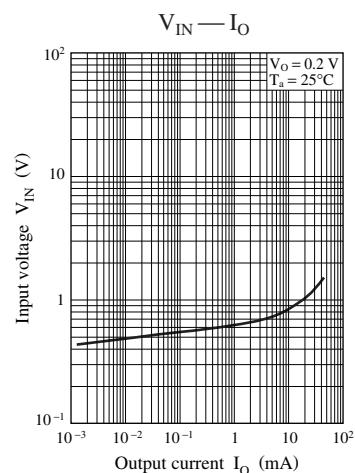
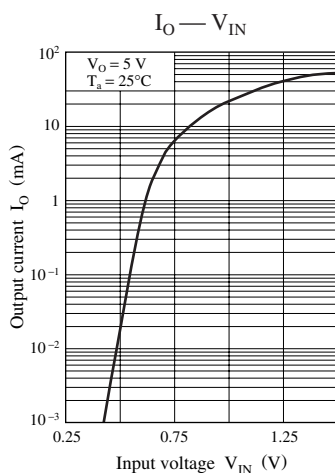
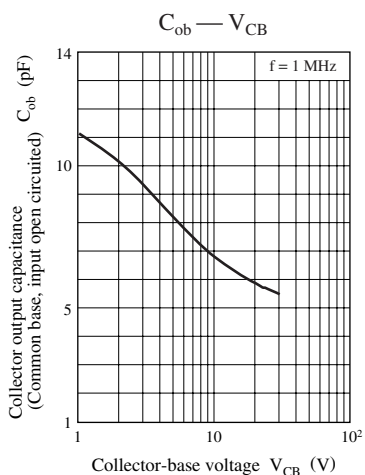
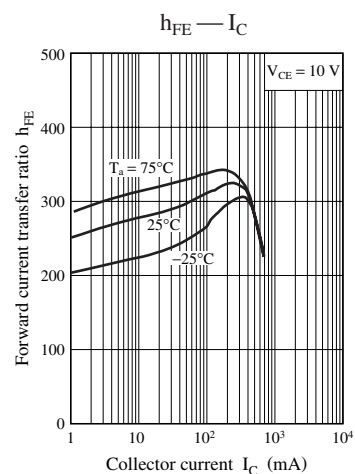
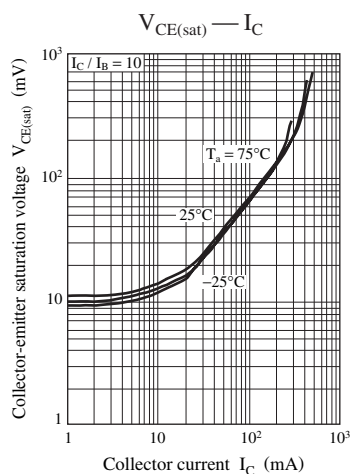
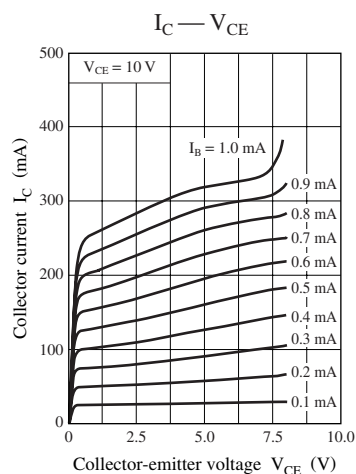


Characteristics charts of UNR5225

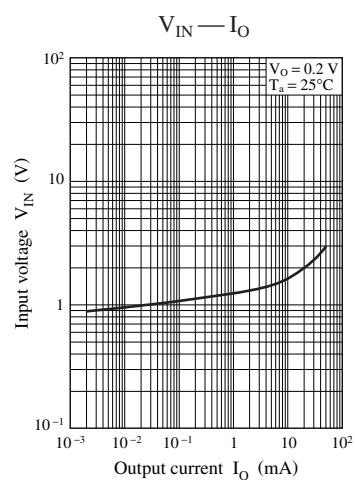
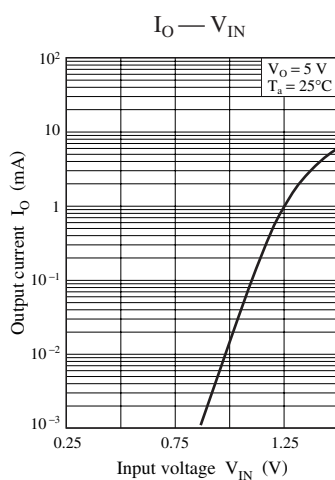
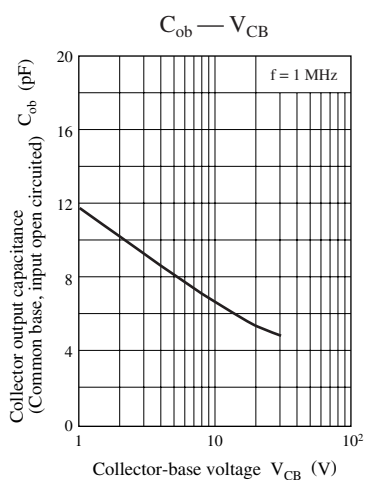
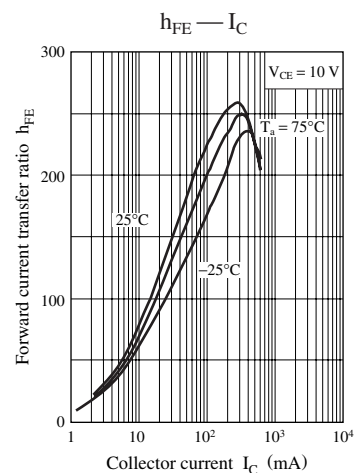
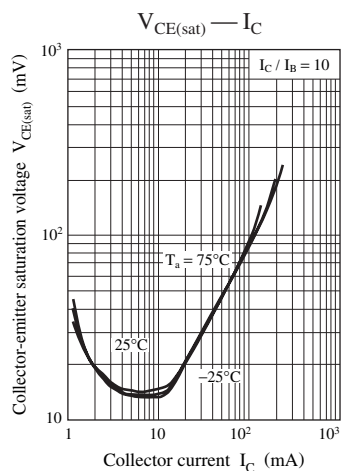
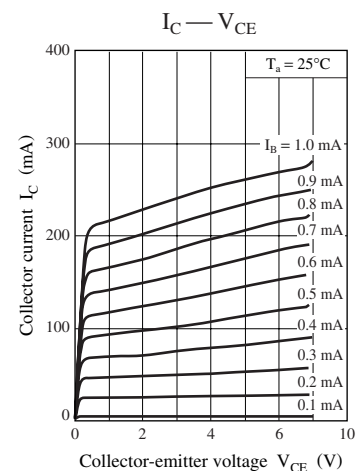




Characteristics charts of UNR5226



Characteristics charts of UNR5227



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