DMC56104

Silicon NPN epitaxial planar type

For digital circuits

DMC26104 in SMini5 type package

Features

- \bullet Low collector-emitter saturation voltage $V_{\mbox{CE(sat)}}$
- Contributes to miniaturization of sets, reduction of component count.
- Eco-friendly Halogen-free package

Basic Part Number

Dual DRC2114Y (Common emitter)

Packaging

Embossed type (Thermo-compression sealing): 3000 pcs / reel (standard)

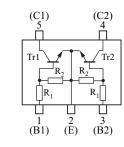
Absolute Maximum Ratings $T_a = 25^{\circ}C$

Parameter	Symbol	Rating	Unit	
Collector-base voltage (Emitter open)	V _{CBO}	50	V	
Collector-emitter voltage (Base open)	V _{CEO}	50	V	
Collector current	I _C 100		mA	
Total power dissipation	P _T	150	mW	
Junction temperature	Tj	T _j 150		
Storage temperature	T _{stg}	-55 to +150	°C	

Package

- Code
- SMini5-F3-B
- Pin Name
 - 1: Base (Tr1) 4: Collector (Tr2)
 - 2: Emitter (Common) 5: Collector (Tr1)
 - 3: Base (Tr2)
- Marking Symbol: J2

Internal Connection



Resistance value	R ₁	10	kΩ
	R ₂	47	kΩ

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

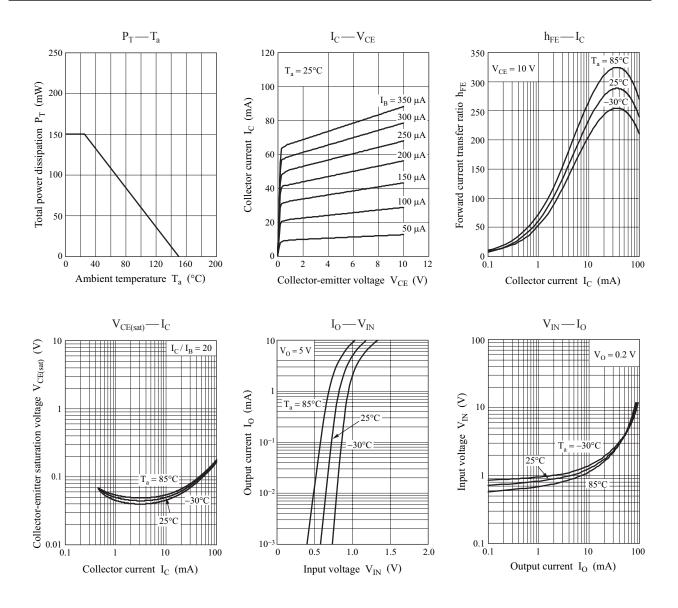
Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V _{CBO}	$I_{\rm C} = 10 \ \mu {\rm A}, I_{\rm E} = 0$	50			V
Collector-emitter voltage (Base open)	V _{CEO}	$I_{\rm C} = 2 {\rm mA}, I_{\rm B} = 0$	50			V
Collector-base cutoff current (Emitter open)	I _{CBO}	$V_{CB} = 50 \text{ V}, I_E = 0$			0.1	μΑ
Collector-emitter cutoff current (Base open)	I _{CEO}	$V_{CE} = 50 \text{ V}, I_{B} = 0$			0.5	μΑ
Emitter-base cutoff current (Collector open)	I _{EBO}	$V_{\rm EB} = 6 \rm V, I_{\rm C} = 0$			0.2	mA
Forward current transfer ratio	h _{FE}	$V_{CE} = 10 \text{ V}, I_C = 5 \text{ mA}$	80			
h _{FE} ratio *	h _{FE} (Small/Large)	$V_{CE} = 10 \text{ V}, I_C = 5 \text{ mA}$	0.50	0.99		_
Collector-emitter saturation voltage	V _{CE(sat)}	$I_{\rm C} = 10 \text{ mA}, I_{\rm B} = 0.5 \text{ mA}$			0.25	V
Input voltage (ON)	V _{I(on)}	$V_{CE} = 0.2 \text{ V}, I_C = 5 \text{ mA}$	1.7			V
Input voltage (OFF)	V _{I(off)}	$V_{CE} = 5 \text{ V}, I_C = 100 \mu\text{A}$			0.5	V
Input resistance	R ₁		-30%	10	+30%	kΩ
Resistance ratio	R ₁ / R ₂		0.17	0.21	0.25	

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

2. *: Ratio between 2 elements

DMC56104

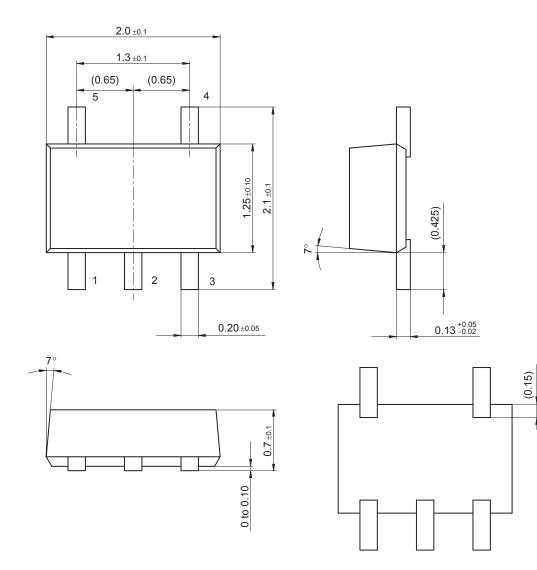
Panasonic



Panasonic

SMini5-F3-B

Unit: mm



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