DRC2143Y

Silicon NPN epitaxial planar type

For digital circuits Complementary to DRA2143Y

Features

- \bullet High forward current transfer ratio h_{FE}
- \bullet Low collector-emitter saturation voltage $V_{CE(\text{sat})}$
- Contributes to miniaturization of sets, reduction of component count.
- Eco-friendly Halogen-free package

Packaging

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

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

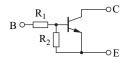
U							
Parameter	Parameter Symbol		Unit				
Collector-base voltage (Emitter open)	V _{CBO}	50	V				
Collector-emitter voltage (Base open)	pen) V _{CEO} 50						
Collector current	I _C	100	mA				
Total power dissipation	P _T	200	mW				
Junction temperature	Tj	150	°C				
Storage temperature	T _{stg}	-55 to +150	°C				

Package

- Code
- Mini3-G3-B
- Pin Name
 - 1: Base
 - 2: Emitter
 - 3: Collector

Marking Symbol: N7

Internal Connection



Resistance value	R ₁	4.7	kΩ
	R ₂	22	kΩ

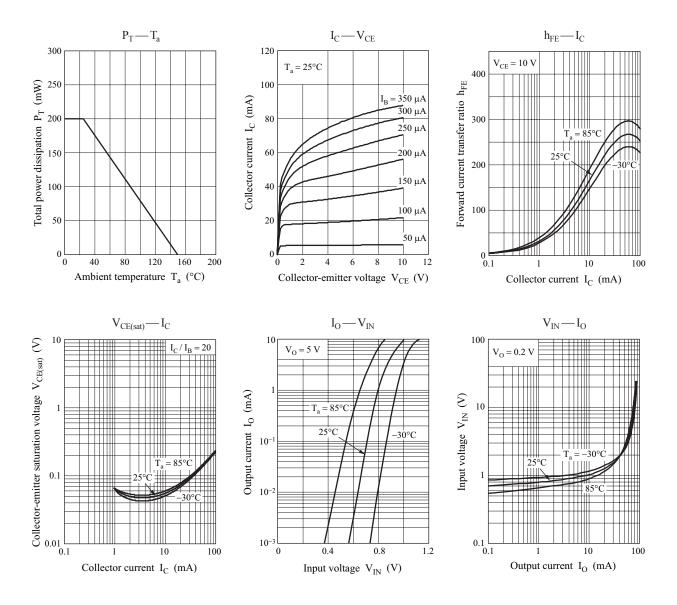
Electrical Characteristics $T_a = 25^{\circ}C \pm 3^{\circ}C$

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}	$V_{\rm EB} = 6 \text{V}, \text{I}_{\rm C} = 0$			0.4	mA
Forward current transfer ratio	h _{FE}	$V_{CE} = 10 \text{ V}, I_C = 5 \text{ mA}$	60		200	_
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)}	$V_{\rm CE} = 0.2$ V, $I_{\rm C} = 5$ mA	1.2			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%	4.7	+30%	kΩ
Resistance ratio	R ₁ / R ₂		0.17	0.21	0.27	

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

DRC2143Y

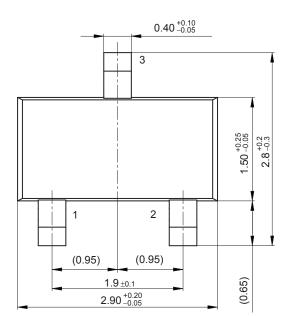
Panasonic

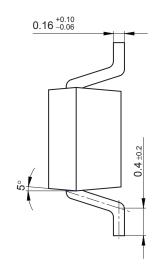


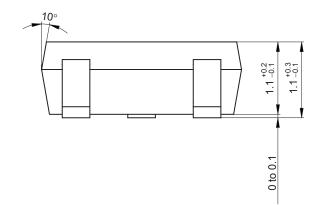
Panasonic

Mini3-G3-B

Unit: mm







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