DSC4501

Silicon NPN epitaxial planar type

For low frequency amplification DSC2501 in NS through hole type package

■ Features

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

■ Packaging

Radial type: 5000 pcs / carton

■ Absolute Maximum Ratings $T_a = 25$ °C

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V _{CBO}	25	V
Collector-emitter voltage (Base open)	V _{CEO}	20	V
Emitter-base voltage (Collector open)	V _{EBO}	12	V
Collector current	I_{C}	0.5	A
Peak collector current	I_{CP}	1	A
Collector power dissipation	P _C	300	mW
Junction temperature	T_j	150	°C
Storage temperature	T _{stg}	-55 to +150	°C

■ Package

• Code

NS-B2-B

- Pin Name
 - 1. Emitter
 - 2. Collector
 - 3. Base

■ Marking Symbol: E3

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

Parameter	Symbol	Conditions	Min	Тур	Max	Unit
Collector-base voltage (Emitter open)	V _{CBO}	$I_C = 10 \mu A, I_E = 0$	25			V
Collector-emitter voltage (Base open)	V _{CEO}	$I_{\rm C} = 1 \text{ mA}, I_{\rm B} = 0$	20			V
Emitter-base voltage (Collector open)	V_{EBO}	$I_E = 10 \mu A, I_C = 0$	12			V
Collector-base cutoff current (Emitter open)	I_{CBO}	$V_{CB} = 25 \text{ V}, I_{E} = 0$			100	nA
Forward current transfer ratio *1,2	h _{FE}	$V_{CE} = 2 \text{ V}, I_{C} = 0.5 \text{ A}$	200		800	_
Collector-emitter saturation voltage *1	V _{CE(sat)}	$I_C = 0.5 \text{ A}, I_B = 20 \text{ mA}$		0.18	0.40	V
Base-emitter saturation voltage *1	V _{BE(sat)}	$I_C = 0.5 \text{ A}, I_B = 50 \text{ mA}$			1.2	V
Transition frequency	f_T	$V_{CE} = 10 \text{ V}, I_{C} = 50 \text{ mA}$		150		MHz
Collector output capacitance (Common base, input open circuited)	C _{ob}	$V_{CB} = 10 \text{ V}, I_{E} = 0, f = 1 \text{ MHz}$		6		pF
ON resistance	R _{on}			1.0		Ω

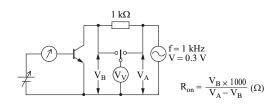
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.

^{*2:} Rank classification

Code	R	S	Т	0
Rank	R	S	Т	No-rank
h_{FE}	200 to 350	300 to 500	400 to 800	200 to 800
Marking Symbol	E3R	E3S	E3T	E3

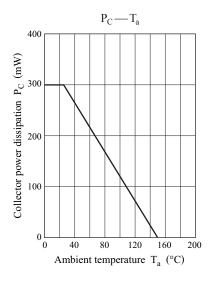
Product of no-rank is not classified and have no marking symbol for rank.

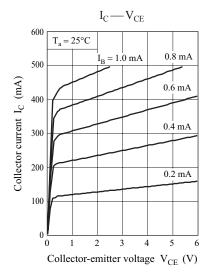
*3: Ron measurement circuit

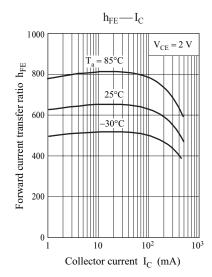


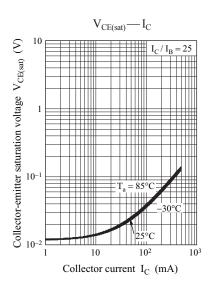
^{2. *1:} Pulse measurement

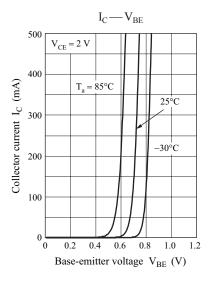
DSC4501 Panasonic

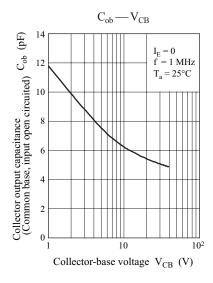


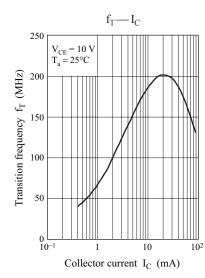








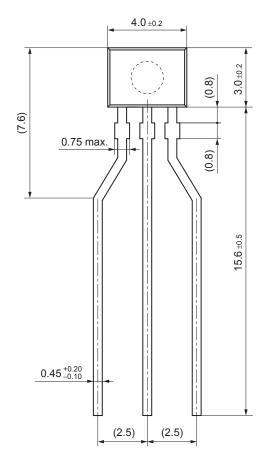


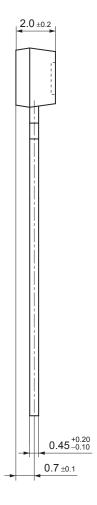


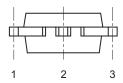
2 Ver. AED

Panasonic DSC4501

NS-B2-B Unit: mm







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