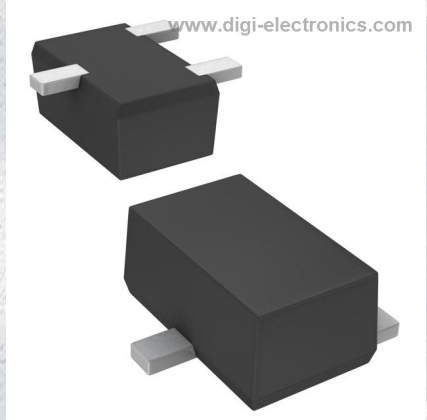
2SD18240SL Datasheet



https://www.DiGi-Electronics.com

DiGi Electronics Part Number	2SD18240SL-DG
Manufacturer	Panasonic Electronic Components
Manufacturer Product Number	2SD18240SL
Description	TRANS NPN 100V 0.02A SMINI3
Detailed Description	Bipolar (BJT) Transistor NPN 100 V 20 mA 90MHz 150 mW Surface Mount SMini3-G1

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
2SD18240SL	Panasonic Electronic Components
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
NPN	20 mA
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
100 V	200mV @ 1mA, 10mA
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
1µA	600 @ 2mA, 10V
Power - Max:	Frequency - Transition:
150 mW	90MHz
Operating Temperature:	Mounting Type:
150°C (TJ)	Surface Mount
Package / Case:	Supplier Device Package:
SC-70, SOT-323	SMini3-G1
Base Product Number:	
2SD1824	

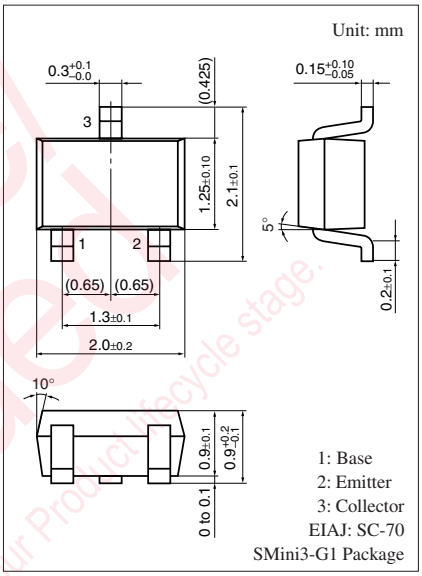
Environmental & Export classification

RoHS Status:	Moisture Sensitivity Level (MSL):
RoHS non-compliant	1 (Unlimited)
ECCN:	HTSUS:
EAR99	8541.21.0095

2SD1824

Silicon NPN epitaxial planar type

For low-frequency amplification



Marking symbol: 1V

■ Features

- High forward current transfer ratio h_{FE}
- Low collector-emitter saturation voltage $V_{CE(sat)}$
- High emitter-base voltage (Collector open) V_{EBO}
- S-Mini type package, allowing downsizing of the equipment and automatic insertion through the tape packing and the magazine packing.

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter	Symbol	Rating	Unit
Collector-base voltage (Emitter open)	V_{CBO}	100	V
Collector-emitter voltage (Base open)	V_{CEO}	100	V
Emitter-base voltage (Collector open)	V_{EBO}	15	V
Collector current	I_C	20	mA
Peak collector current	I_{CP}	50	mA
Collector power dissipation	P_C	150	mW
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

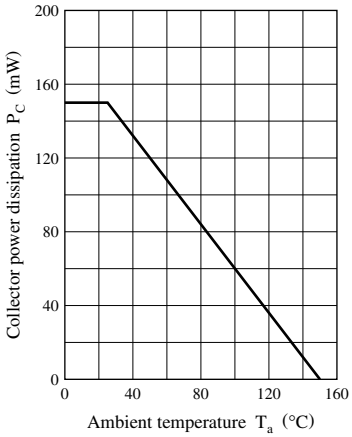
■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-base voltage (Emitter open)	V_{CBO}	I_C = 10 µA, I_E = 0	100			V
Collector-emitter voltage (Base open)	V_{CEO}	I_C = 1 mA, I_B = 0	100			V
Emitter-base voltage (Collector open)	V_{EBO}	I_E = 10 µA, I_C = 0	15			V
Collector-base cutoff current (Emitter open)	I_{CBO}	V_{CB} = 60 V, I_E = 0			0.1	µA
Collector-emitter cutoff current (Base open)	I_{CEO}	V_{CE} = 60 V, I_B = 0			1	µA
Forward current transfer ratio *	h_{FE}	V_{CE} = 10 V, I_C = 2 mA	400		1 200	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 10 mA, I_B = 1 mA		0.05	0.20	V
Transition frequency	f_T	V_{CB} = 10 V, I_E = −2 mA, f = 200 MHz		90		MHz

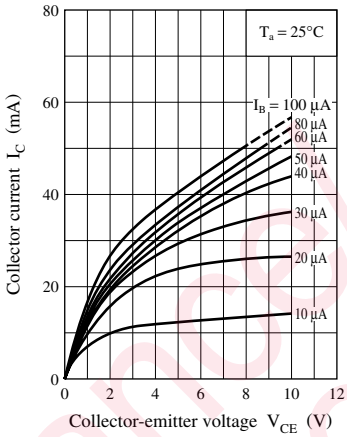
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. *: Rank classification

Rank	R	S
h_{FE}	400 to 800	600 to 1 200

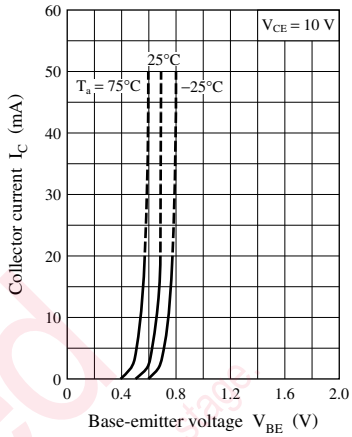
P_C — T_a



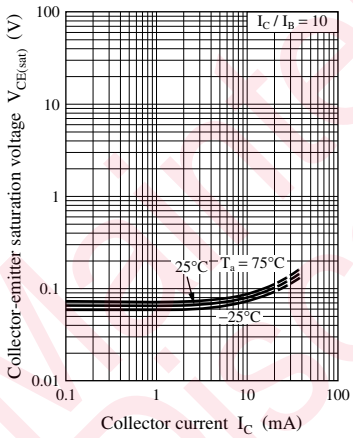
I_C — V_{CE}



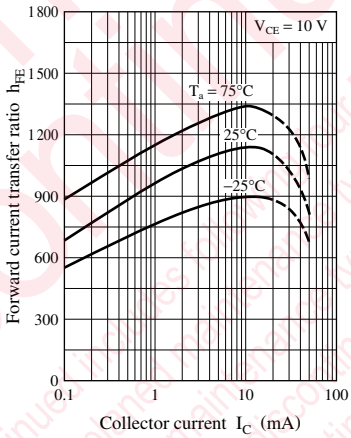
I_C — V_{BE}



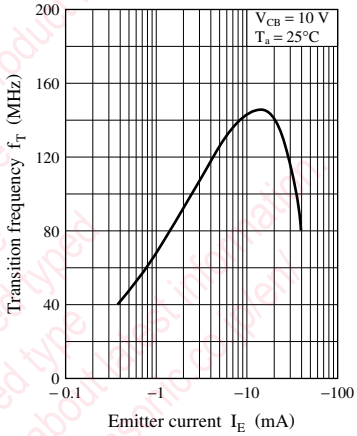
$V_{CE(sat)}$ — I_C



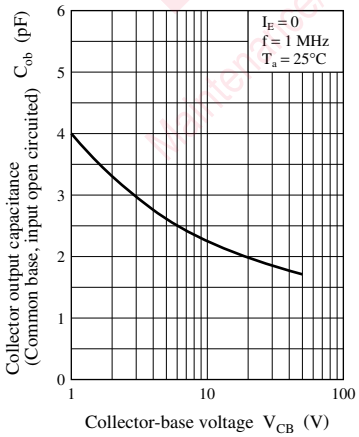
h_{FE} — I_C



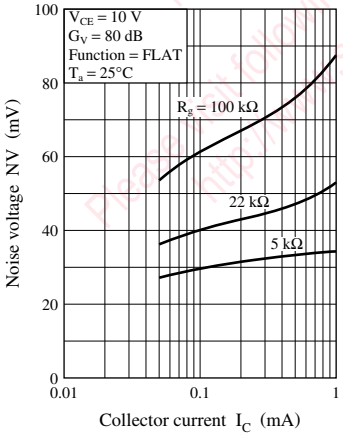
f_T — I_E



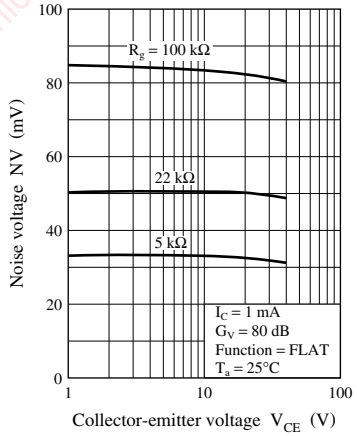
C_{ob} — V_{CB}



NV — I_C



NV — V_{CE}



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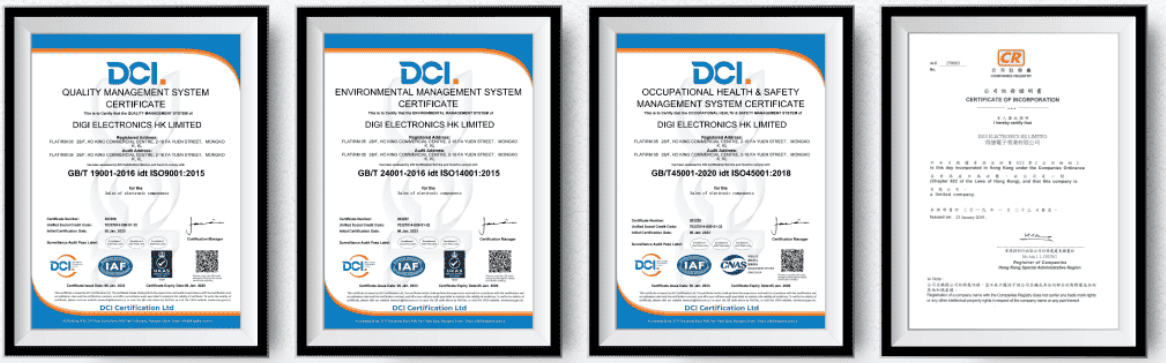

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