2SD2528 Datasheet

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DiGi Electronics Part Number	2SD2528-DG
Manufacturer	Panasonic Electronic Components
Manufacturer Product Number	2SD2528
Description	TRANS NPN 60V 5A TO220D-A1
Detailed Description	Bipolar (BJT) Transistor NPN 60 V 5 A 30MHz 2 W Through Hole TO-220D-A1

Tel: +00 852-30501935

RFQ Email: Info@DiGi-Electronics.com

Purchase and inquiry

Manufacturer Product Number:	Manufacturer:
2SD2528	Panasonic Electronic Components
Series:	Product Status:
-	Obsolete
Transistor Type:	Current - Collector (Ic) (Max):
NPN	5 A
Voltage - Collector Emitter Breakdown (Max):	Vce Saturation (Max) @ Ib, Ic:
60 V	300mV @ 100mA, 4A
Current - Collector Cutoff (Max):	DC Current Gain (hFE) (Min) @ Ic, Vce:
100µA (ICBO)	500 @ 1A, 4V
Power - Max:	Frequency - Transition:
2 W	30MHz
Operating Temperature:	Mounting Type:
150°C (TJ)	Through Hole
Package / Case:	Supplier Device Package:
TO-220-3 Full Pack	TO-220D-A1
Base Product Number:	
2SD252	

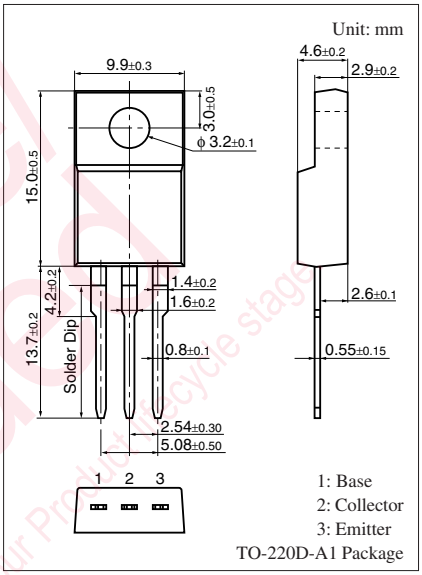
Environmental & Export classification

Moisture Sensitivity Level (MSL):	ECCN:
1 (Unlimited)	EAR99
HTSUS:	
8541.29.0075	

2SD2528

Silicon NPN epitaxial planar type

For power amplification and high-current amplification



■ Features

- High forward current transfer ratio h_{FE}
- Satisfactory linearity of forward current transfer ratio h_{FE}
- Full-pack package which can be installed to the heat sink with one screw

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter		Symbol	Rating	Unit
Collector-base voltage (Emitter open)		V_{CBO}	80	V
Collector-emitter voltage (Base open)		V_{CEO}	60	V
Emitter-base voltage (Collector open)		V_{EBO}	6	V
Collector current		I_C	5	A
Peak collector current		I_{CP}	10	A
Base current		I_B	1	A
Collector power dissipation	$T_C = 25°C$	P_C	40	W
			2.0	
Junction temperature		T_j	150	°C
Storage temperature		T_{stg}	−55 to +150	°C

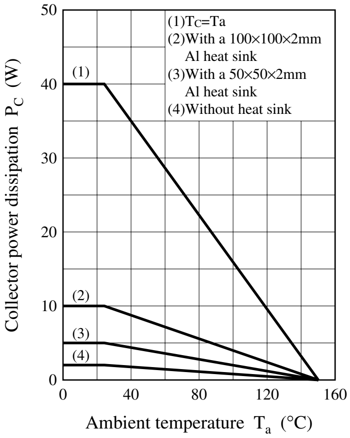
■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Collector-emitter voltage (Base open)	V_{CEO}	I_C = 25 mA, I_B = 0	60			V
Collector-base cutoff current (Emitter open)	I_{CBO}	V_{CB} = 80 V, I_E = 0			100	µA
Emitter-base cutoff current (Collector open)	I_{EBO}	V_{EB} = 6 V, I_C = 0			100	µA
Forward current transfer ratio	h_{FE} *	V_{CE} = 4 V, I_C = 1 A	500		2 000	—
Collector-emitter saturation voltage	$V_{CE(sat)}$	I_C = 4 A, I_B = 0.1 A			0.3	V
Transition frequency	f_T	V_{CE} = 12 V, I_C = 0.4 A, f = 10 MHz		30		MHz
Turn-on time	t_{on}	I_C = 4 A, I_{B1} = 0.08 A, I_{B2} = − 0.08 A		0.4		µs
Storage time	t_{stg}	V_{CC} = 50 V		2.0		µs
Fall time	t_f			0.6		µs

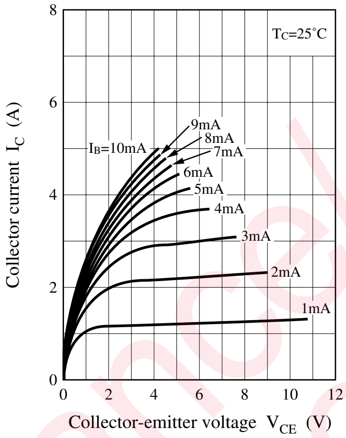
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7030 measuring methods for transistors.
2. *: Rank classification

Rank	Q	P
h_{FE1}	500 to 1 200	800 to 2 000

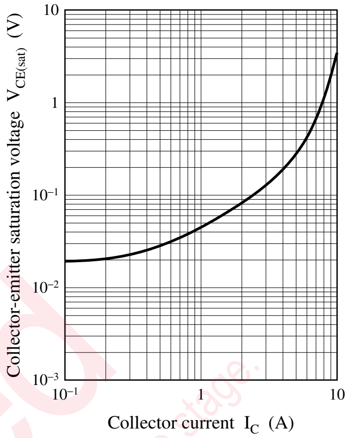
P_C — T_a



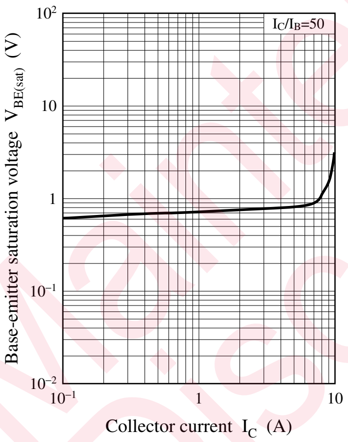
I_C — V_{CE}



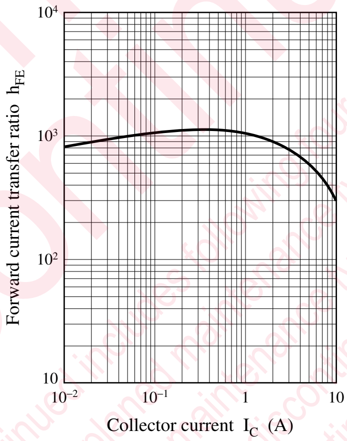
$V_{CE(sat)}$ — I_C



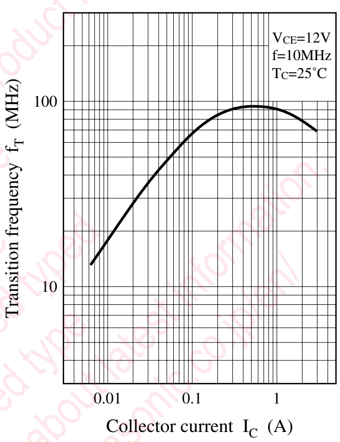
$V_{BE(sat)}$ — I_C



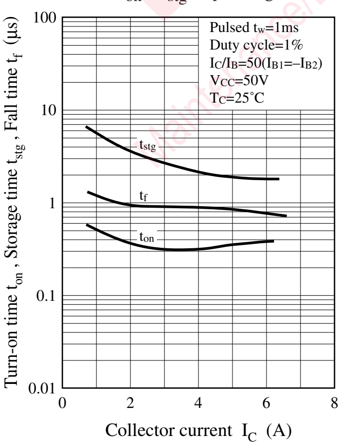
h_{FE} — I_C



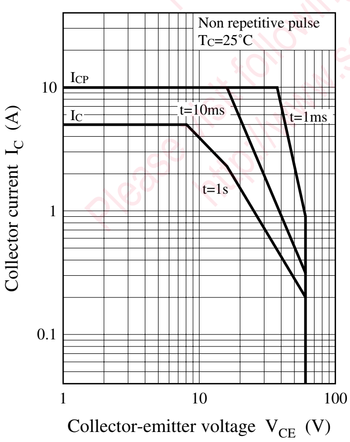
f_T — I_C



t_{on} , t_{stg} , t_f — I_C



Safe operation area



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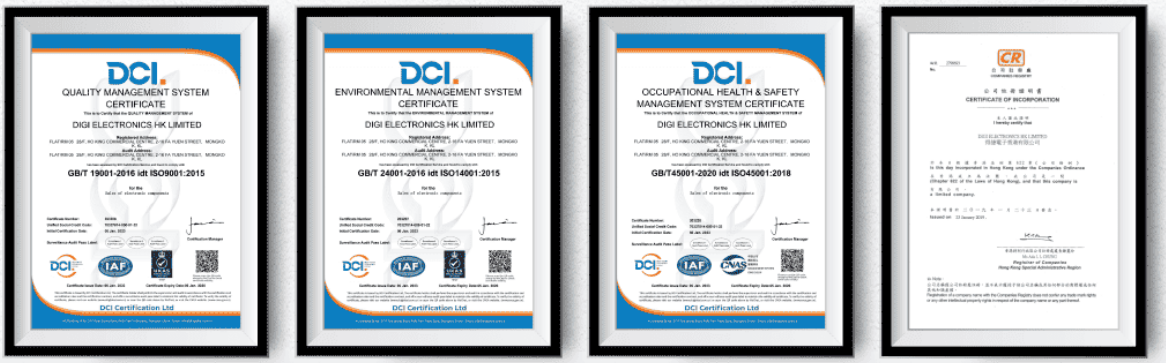

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