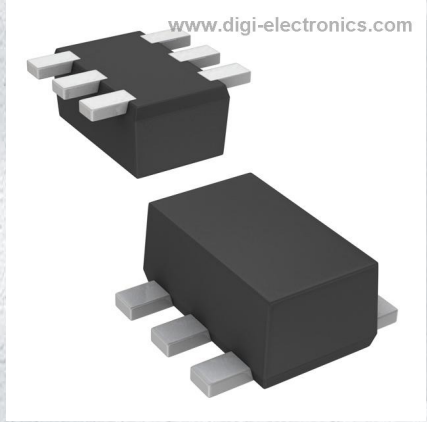
MA6Z12100L Datasheet



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DiGi Electronics Part Number	MA6Z12100L-DG
Manufacturer	Panasonic Electronic Components
Manufacturer Product Number	MA6Z12100L
Description	DIODE ARRAY GP 80V 100MA SMINI6
Detailed Description	Diode Array 3 Independent 80 V 100mA (DC) Surface Mount 6-SMD, Flat Leads

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Manufacturer Product Number:	Manufacturer:
MA6Z12100L	Panasonic Electronic Components
Series:	Product Status:
-	Obsolete
Diode Configuration:	Technology:
3 Independent	Standard
Voltage - DC Reverse (Vr) (Max):	Current - Average Rectified (Io) (per Diode):
80 V	100mA (DC)
Voltage - Forward (Vf) (Max) @ If:	Speed:
1.2 V @ 100 mA	Small Signal =< 200mA (Io), Any Speed
Reverse Recovery Time (trr):	Current - Reverse Leakage @ Vr:
3 ns	100 nA @ 75 V
Operating Temperature - Junction:	Mounting Type:
150°C (Max)	Surface Mount
Package / Case:	Supplier Device Package:
6-SMD, Flat Leads	SMini6-F1
Base Product Number:	
MA6Z121	

Environmental & Export classification

Moisture Sensitivity Level (MSL):	ECCN:
1 (Unlimited)	EAR99
HTSUS:	
8541.10.0070	

MA6Z121 (MA6S121)

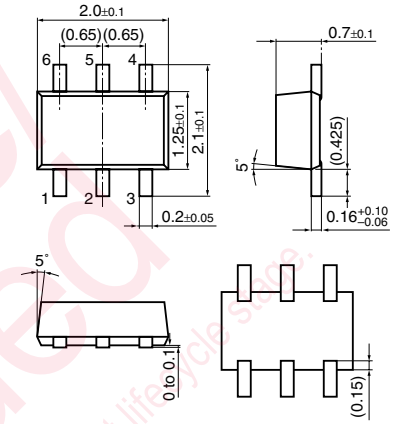
Silicon epitaxial planar type

For switching circuit

■ Features

- Three isolated elements contained in one package, allowing high-density mounting
- Flat lead type, resulting in improved mounting efficiency and solderability with the high-speed mounting machine
- Short reverse recovery time t_{rr}
- Small terminal capacitance C_t

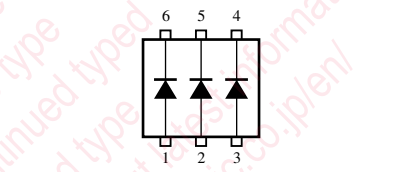
Unit: mm



1: Anode 1 4: Cathode 3
2: Anode 2 5: Cathode 2
3: Anode 3 6: Cathode 1
EIAJ: SC-88 SMini6-F1 Package

Marking Symbol: M2D

Internal Connection



■ Absolute Maximum Ratings $T_a = 25°C$

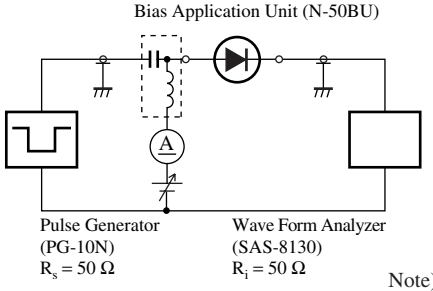
Parameter	Symbol	Rating	Unit
Reverse voltage	V_R	80	V
Maximum peak reverse voltage	V_{RM}	80	V
Forward current *1	I_F	100	mA
Peak forward current *1	I_{FM}	225	mA
Non-repetitive peak forward surge current *1, 2	I_{FSM}	500	mA
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

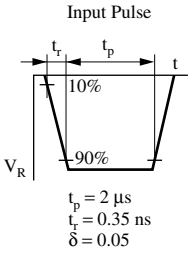
Note) ∗1: Value for single diode
∗2: t = 1 s

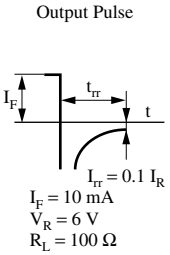
■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	I_F = 100 mA			1.2	V
Reverse voltage	V_R	I_R = 100 µA	80			V
Reverse current	I_R	V_R = 75 V			100	nA
Terminal capacitance	C_t	V_R = 0 V, f = 1 MHz			2	pF
Reverse recovery time *	t_{rr}	I_F = 10 mA, V_R = 6 V I_{rr} = 0.1 I_R, R_L = 100 Ω			3	ns

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.
2. Absolute frequency of input and output is 100 MHz.
3. ∗: t_{rr} measurement circuit

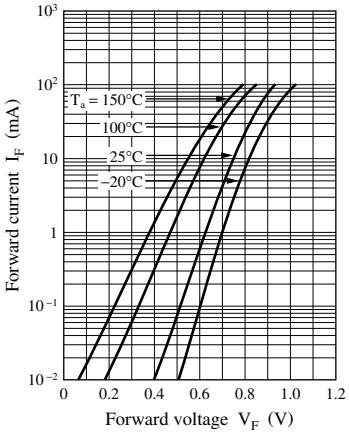




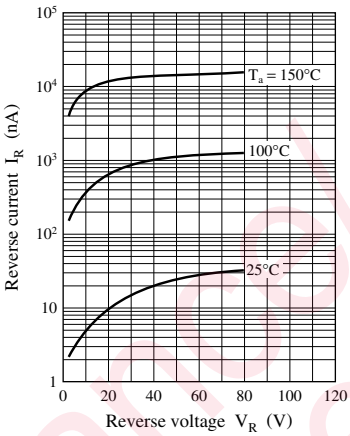


Note) The part number in the parenthesis shows conventional part number.

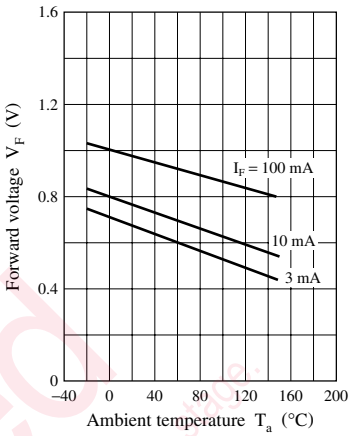
I_F — V_F



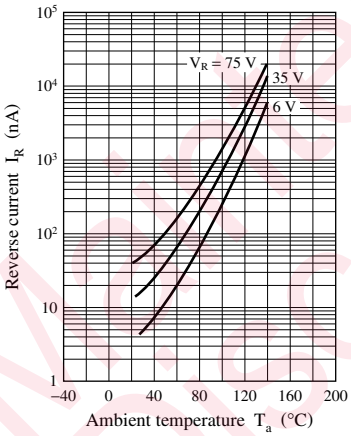
I_R — V_R



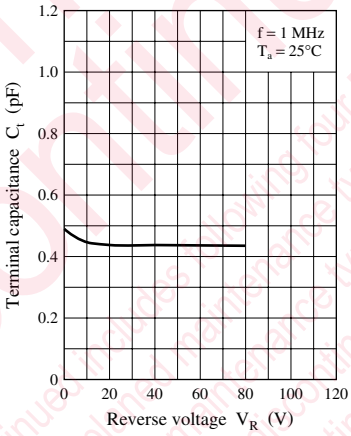
V_F — T_a



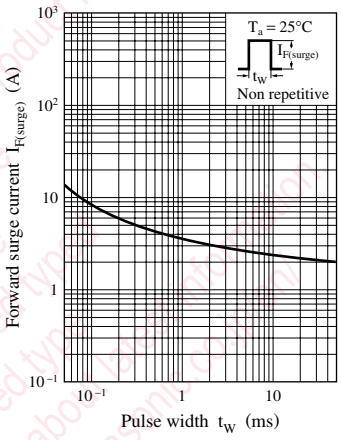
I_R — T_a



C_t — V_R



$I_{F(surge)}$ — t_W



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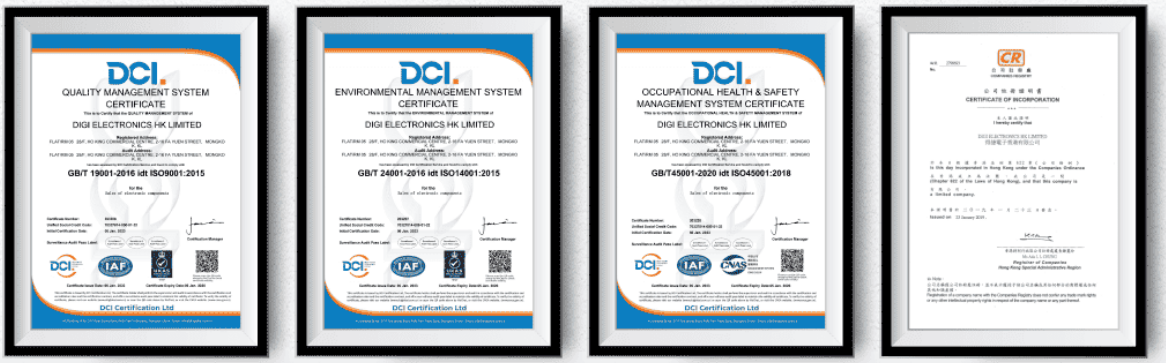

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