

MA2C029 Series (MA29 Series)

Silicon epitaxial planar type

For reduced voltage and temperature compensation

■ Features

- High reliability achieved through combination of a planar type chip and glass sealing structure
- Easy mounting because of employing DO-35 (DHD) envelope
- Extremely small reverse current I_R
- Large power dissipation P_D
- Wide forward voltage V_F range

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

Parameter	Symbol	Rating	Unit	
Reverse voltage	V_R	6	V	
Forward current (Average)	$I_{F(AV)}$	50	mA	
Peak forward current	MA2C029WA/WB	I_{FM}	100	mA
	MA2C029TA/TB		70	
	MA2C029QA/QB		50	
Power dissipation	P_D	150	mW	
Junction temperature	T_j	150	$^\circ\text{C}$	
Storage temperature	T_{stg}	-55 to +150	$^\circ\text{C}$	

■ Electrical Characteristics $T_a = 25^\circ\text{C} \pm 3^\circ\text{C}^{*1}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	MA2C0290A MA2C0290B	V_{F1} $I_F = 1.5 \text{ mA}$	0.56		0.61	V
			0.59		0.64	
	MA2C029WA/WB MA2C029TA/TB MA2C029QA/QB	$I_F = 10 \mu\text{A}$	0.77			
			1.15			
			1.60			
Forward voltage	MA2C0290A/B MA2C029WA	V_{F2} $I_F = 50 \text{ mA}$			1.1	V
					1.28	
	MA2C029WB MA2C029TA MA2C029TB MA2C029QA MA2C029QB	$I_F = 3 \text{ mA}$	1.18		1.28	
			1.26		1.36	
			1.76		1.92	
			1.88		2.04	
			2.20		2.40	
2.34		2.54				
Reverse current	MA2C0290A/B MA2C029WA/WB MA2C029TA/TB MA2C029QA/QB	I_R $V_R = 6 \text{ V}$			10	μA
					1	
Temperature coefficient of forward voltage	MA2C0290A/B ^{*2} MA2C029WA/WB ^{*2} MA2C029TA/TB ^{*2} MA2C029QA/QB ^{*2}	$-\Delta V_F / \Delta T$ $I_F = 1.5 \text{ mA}$		2.0		$\text{mV}/^\circ\text{C}$
				4.6		
				6.5		
				8.8		

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. *1: The temperature must be controlled 25°C for V_F measurement. V_F value measured at other temperature must be adjusted to $V_F(25^\circ\text{C})$.

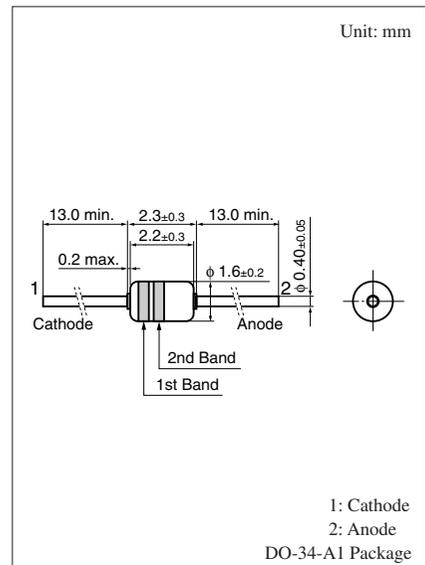
*2: $T_j = 25^\circ\text{C}$ to 150°C

■ Cathode Indication

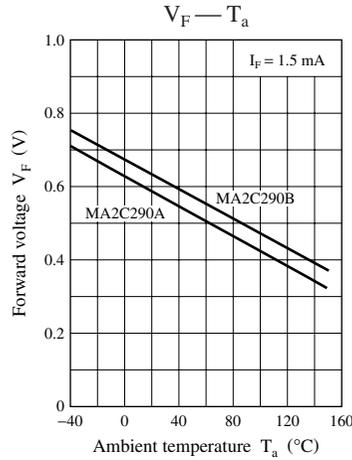
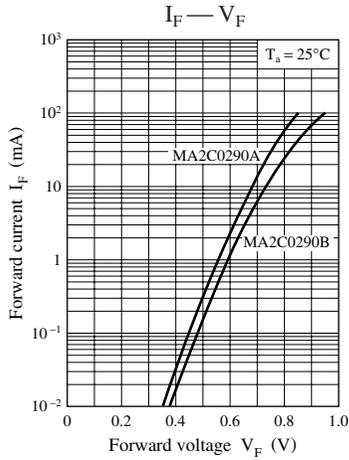
Type No.	MA2C0290A	MA2C0290B	MA2C029WA	MA2C029WB	MA2C029TA [*]	MA2C029TB [*]	MA2C029QA [*]	MA2C029QB [*]
1st band Color	Red	Blue	Light Blue	Brown	Yellow	Blue	Green	Brown
2st band Color	Blue/Yellow	Blue/Yellow						

Note) *: Body Color ; Black

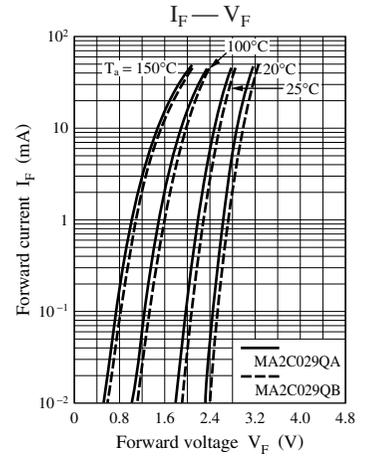
Note) The part numbers in the parenthesis show conventional part number.



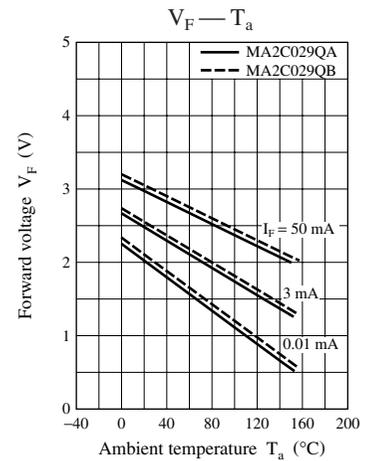
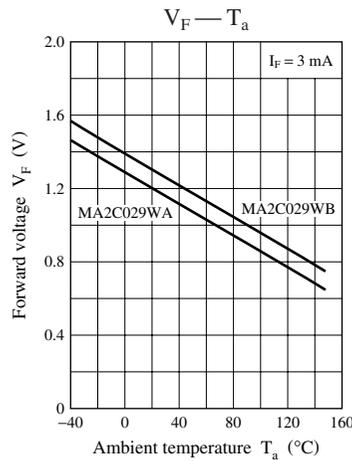
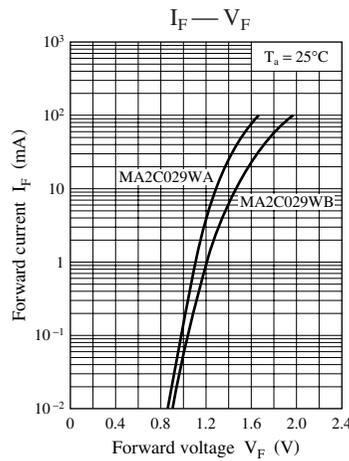
Characteristics charts of MA2C029



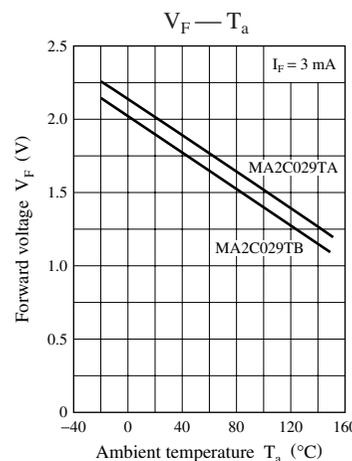
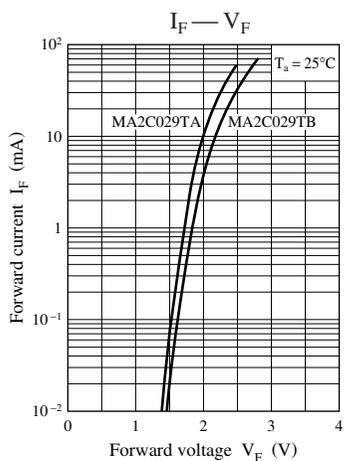
Characteristics charts of MA2C029Q



Characteristics charts of MA2C029W



Characteristics charts of MA2C029T



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