

MA2C165, MA2C166, MA2C167

Silicon epitaxial planar type

For switching circuits

■ Features

- Short reverse recovery time t_{rr}
- Small terminal capacitance, C_t

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

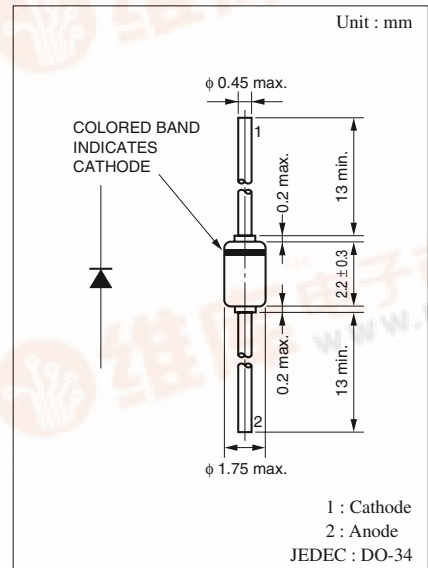
Parameter	Symbol	Rating	Unit	
Reverse voltage (DC)	MA2C165	V_R	35	V
	MA2C166		50	
	MA2C167		75	
Repetitive peak reverse voltage	MA2C165	V_{RRM}	35	V
	MA2C166		50	
	MA2C167		75	
Average forward current	$I_{F(AV)}$	100	mA	
Repetitive peak forward current	I_{FRM}	225	mA	
Non-repetitive peak forward surge current*	I_{FSM}	500	mA	
Junction temperature	T_j	200	$^\circ\text{C}$	
Storage temperature	T_{stg}	-55 to +200	$^\circ\text{C}$	

Note) * : $t = 1 \text{ s}$

■ Electrical Characteristics $T_a = 25^\circ\text{C}$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit	
Reverse current (DC)	MA2C165	I_R	$V_R = 15 \text{ V}$			0.025	μA
		$V_R = 30 \text{ V}$			0.1		
	MA2C166	$V_R = 15 \text{ V}$			0.025		
		$V_R = 50 \text{ V}$			5		
	MA2C167	$V_R = 20 \text{ V}$		0.012	0.025		
		$V_R = 75 \text{ V}$			5		
	MA2C165	$V_R = 35 \text{ V}, T_a = 150^\circ\text{C}$			100		
		MA2C166	$V_R = 50 \text{ V}, T_a = 150^\circ\text{C}$			100	
MA2C167			$V_R = 75 \text{ V}, T_a = 150^\circ\text{C}$		50	100	
Forward voltage (DC)	V_F	$I_F = 100 \text{ mA}$		0.95	1.2	V	
Reverse voltage (DC)	V_R	$I_R = 5 \mu\text{A}$	35			V	
Terminal capacitance	C_t	$V_R = 0 \text{ V}, f = 1 \text{ MHz}$		0.9	2	pF	
Reverse recovery time*	MA2C165	t_{rr}	$I_F = 10 \text{ mA}, V_R = 1 \text{ V},$			10	ns
	MA2C166/167		$I_{tr} = 0.1 \cdot I_R, R_L = 100 \Omega$		2.2	4	

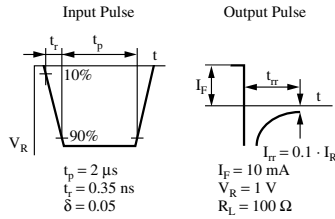
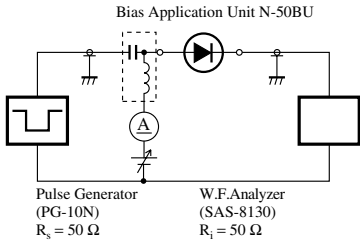
Note) 1. Rated input/output frequency: 100 MHz (MA2C165), 250 MHz (MA2C167), 1 000 MHz (MA2C166) 2. * : t_{rr} measuring circuit



■ Cathode Indication

Type No.	MA2C165	MA2C166	MA2C167
Color	White	Green	Violet





t_{rr} measuring circuit

