

MA170, MA171

Silicon epitaxial planer type

For high speed switching circuits

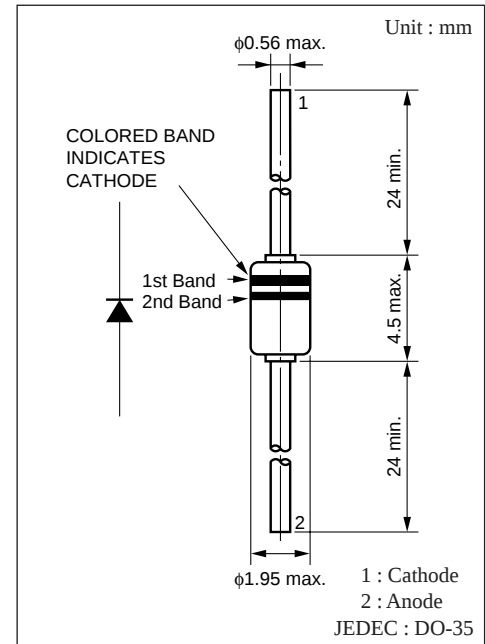
■ Features

- Large forward current $I_{F(AV)}$
- High switching speed
- Small capacity between pins, C_t

■ Absolute Maximum Ratings (Ta= 25°C)

Parameter		Symbol	Rating	Unit
Reverse voltage (DC)	MA170	V_R	40	V
	MA171		80	
Repetitive peak reverse voltage	MA170	V_{RRM}	40	V
	MA171		80	
Average forward current		$I_{F(AV)}$	200	mA
Repetitive peak forward current		I_{FRM}	600	mA
Non-repetitive peak forward surge current		I_{FSM}^*	1	A
Junction temperature		T_j	200	°C
Storage temperature		T_{stg}	- 55 to + 200	°C

* $t=1s$



■ Electrical Characteristics (Ta= 25°C)

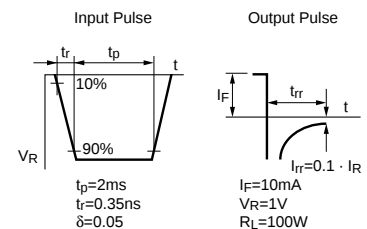
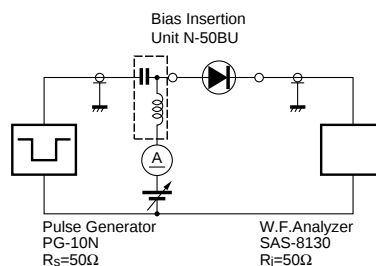
Parameter		Symbol	Condition	min	typ	max	Unit
Reverse current (DC)	MA170	I_{R1}	$V_R=15V$			50	nA
	MA171						
	MA170	I_{R2}	$V_R=35V$			500	nA
	MA171		$V_R=75V$			500	
	MA170	I_R	$V_R=35V, T_a=150^\circ C$			100	μA
	MA171		$V_R=75V, T_a=150^\circ C$			100	
Forward voltage (DC)		V_F	$I_F=200mA$			1.1	V
Terminal capacitance		C_t	$V_R=0V, f=1MHz$			4	pF
Reverse recovery time		t_{rr}^*	$I_F=10mA, V_R=1V$ $I_{rr}=0.1 \cdot I_R, R_L=100\Omega$			20	ns

❖ Rated input/output frequency : 100MHz

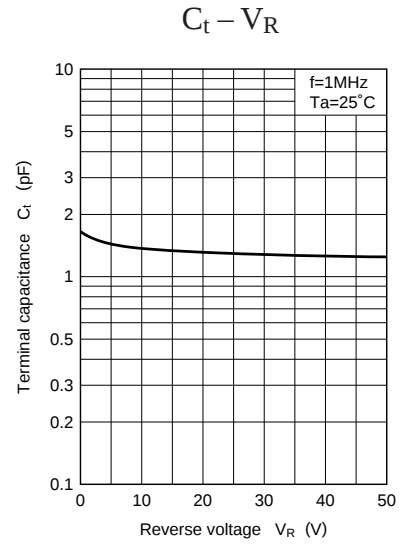
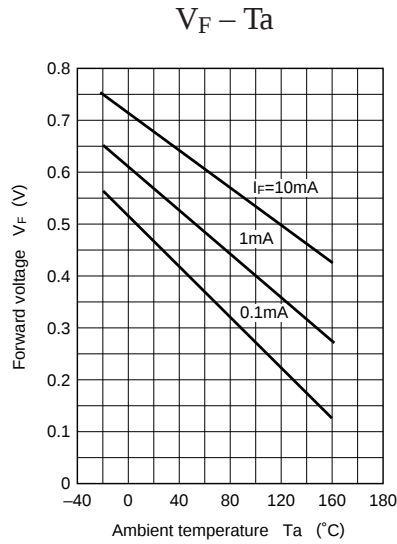
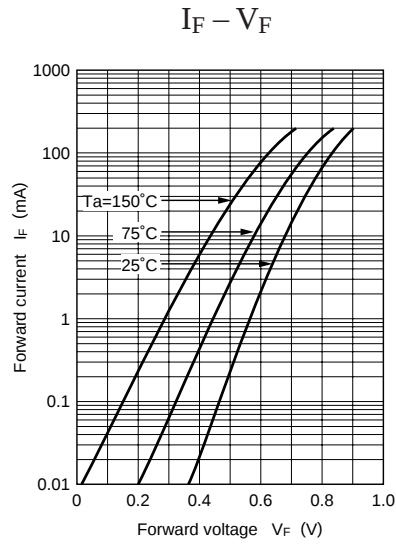
■ Cathode Indication

Type No.	MA170	MA171
Color		
1st Band	Violet	Violet
2nd Band	White	Green

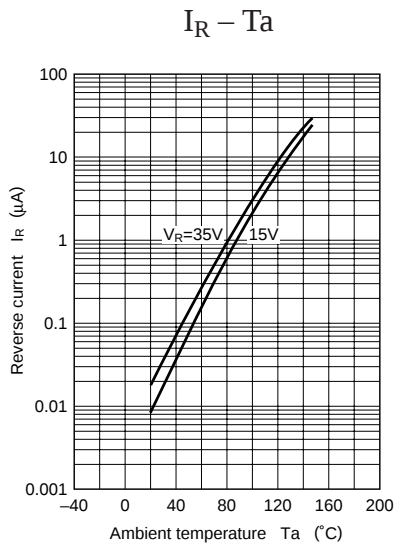
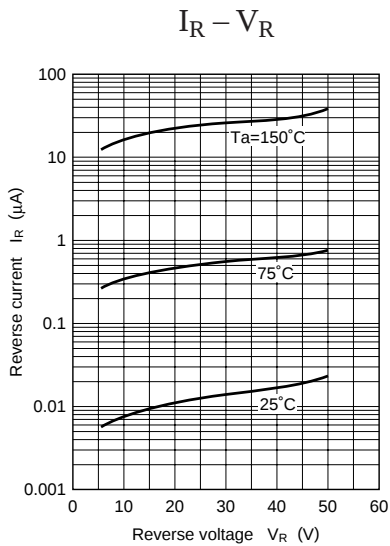
* t_{rr} measuring circuit



Common characteristics chart



Characteristics chart of MA170



Characteristics chart of MA171

