

MA165, MA166, MA167

Silicon epitaxial planer type

For switching circuits

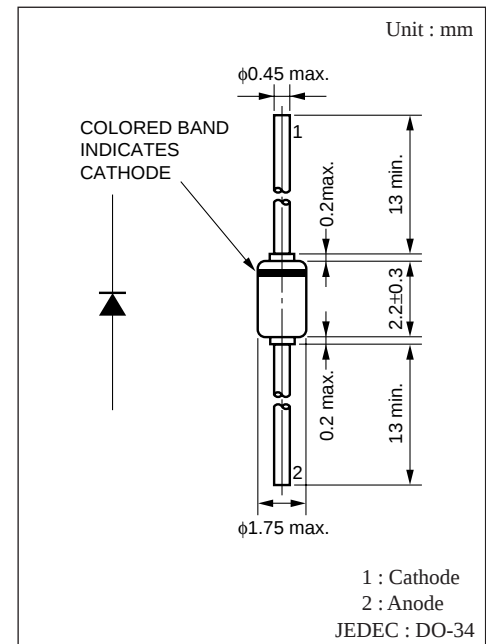
■ Features

- Short reverse recovery period t_{rr}
- Small capacity between pins, C_t

■ Absolute Maximum Ratings (Ta= 25°C)

Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	MA165	35	V
	MA166	50	
	MA167	75	
Repetitive peak reverse voltage	MA165	35	V
	MA166	50	
	MA167	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	°C
Storage temperature	T_{stg}	- 55 to + 200	°C

* $t=1s$



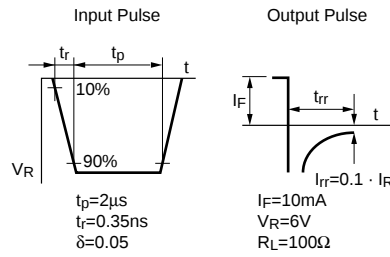
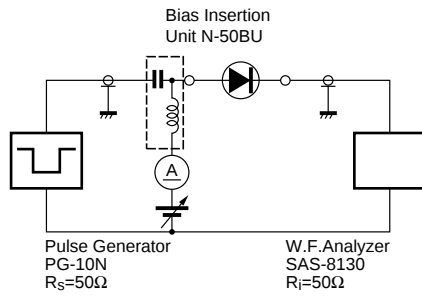
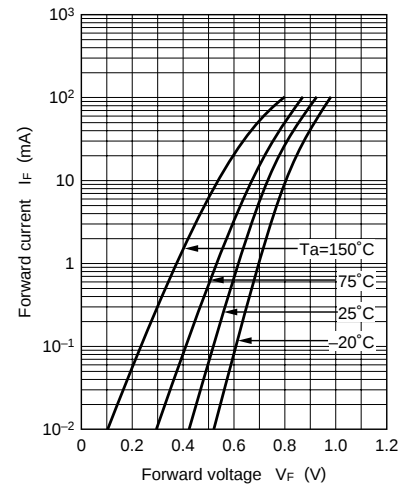
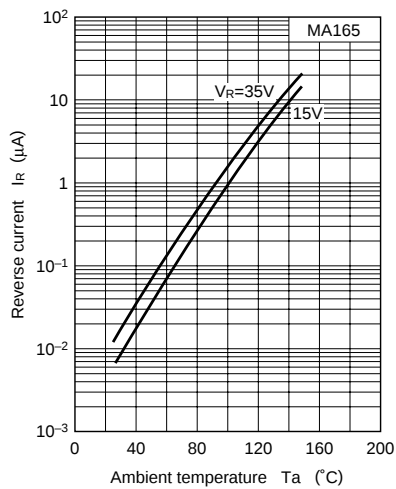
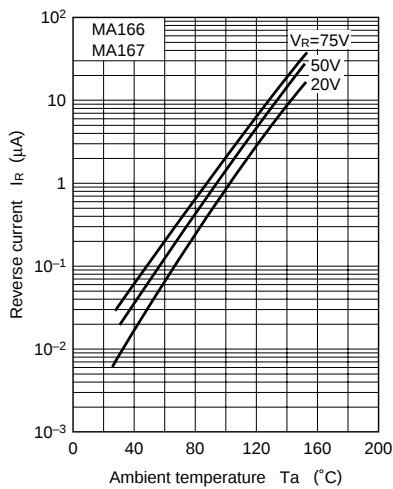
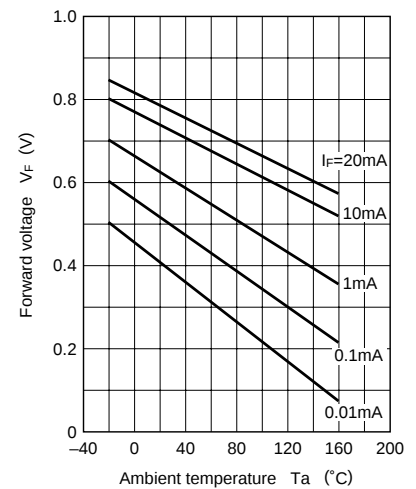
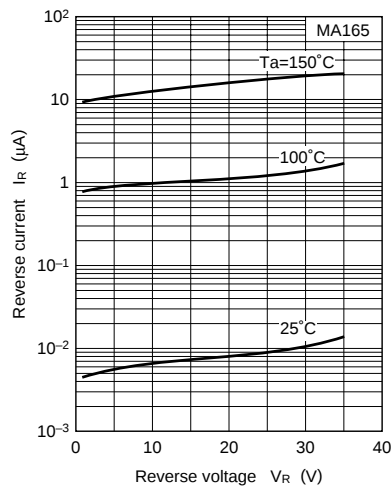
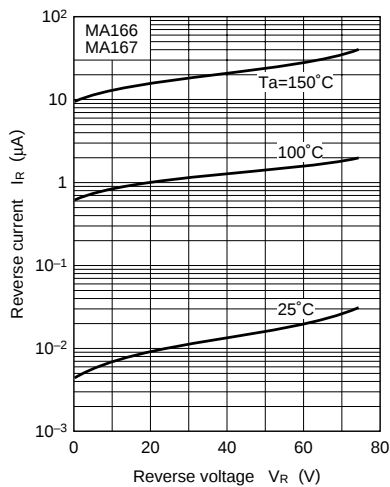
■ Electrical Characteristics (Ta= 25°C)

Parameter	Symbol	Condition	min	typ	max	Unit
Reverse current (DC)	MA165	$V_R=15V$			0.025	μA
		$V_R=30V$			0.1	
	MA166	$V_R=15V$			0.025	
		$V_R=50V$			5	
	MA167	$V_R=20V$		0.012	0.025	
		$V_R=75V$		0.1	5	
	MA165	$V_R=35V, T_a=150^\circ C$			100	
	MA166	$V_R=50V, T_a=150^\circ C$			100	
Forward voltage (DC)	V_F	$I_F=100mA$		0.95	1.2	V
Reverse voltage (DC)	MA165	V_R	35			V
Terminal capacitance	C_t	$V_R=0V, f=1MHz$		0.9	2	pF
Reverse recovery time	MA165	t_{rr} *			10	ns
	MA166/167			2.2	4	

❖ Rated input/output frequency : 100MHz (MA165), 250MHz (MA167), 1,000MHz (MA166)

■ Cathode Indication

Type No.	MA165	MA166	MA167
Color	White	Green	Violet

* t_{rr} measuring circuit $I_F - V_F$  $I_R - T_a$  $I_R - T_a$  $V_F - T_a$  $I_R - V_R$  $I_R - V_R$  $C_t - V_R$ 