

MA175WK, MA176WK

Silicon epitaxial planer type

For switching circuits

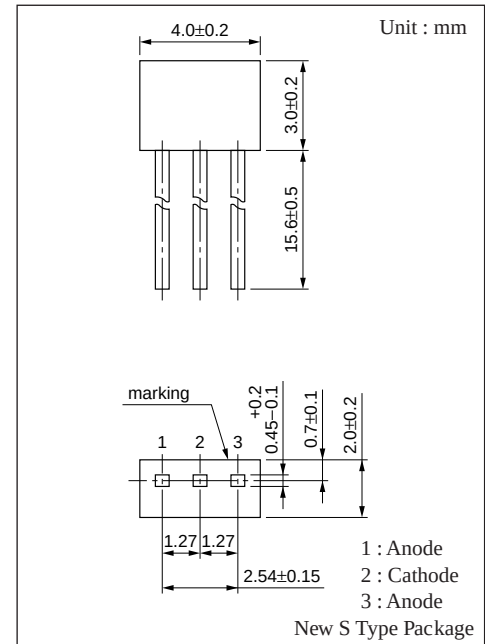
■ Features

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

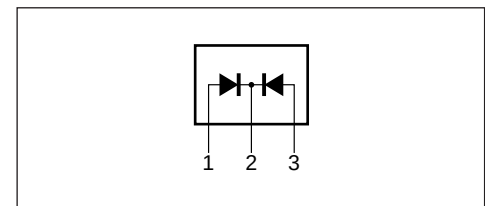
■ Absolute Maximum Ratings (Ta= 25°C)

Parameter		Symbol	Rating	Unit
Reverse voltage (DC)	MA175WK	V_R	40	V
	MA176WK		80	
Peak reverse voltage	MA175WK	V_{RM}	40	V
	MA176WK		80	
Forward current (DC)	Single	I_F	100	mA
	Double		150	
Peak forward current	Single	I_{FM}	225	mA
	Double		340	
Non-repetitive peak forward surge current	Single	I_{FSM}^*	500	mA
	Double		750	
Junction temperature		T_j	150	°C
Storage temperature		T_{stg}	- 55 to +150	°C

* $t=1s$



■ Internal Connection

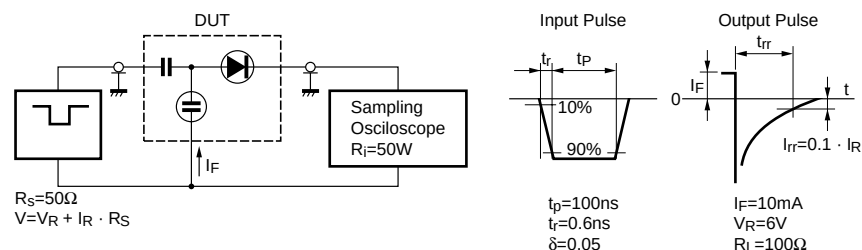


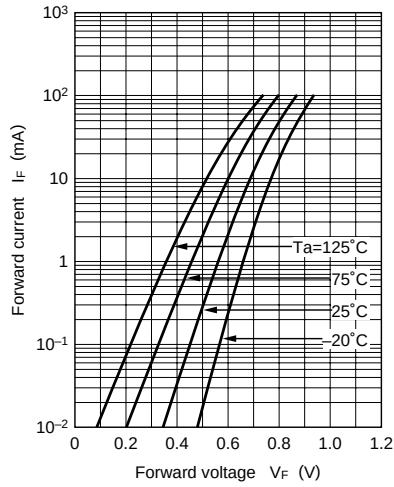
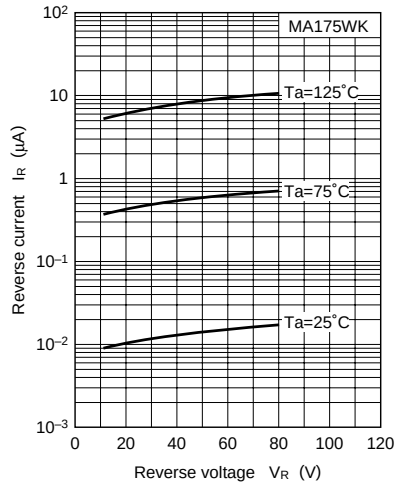
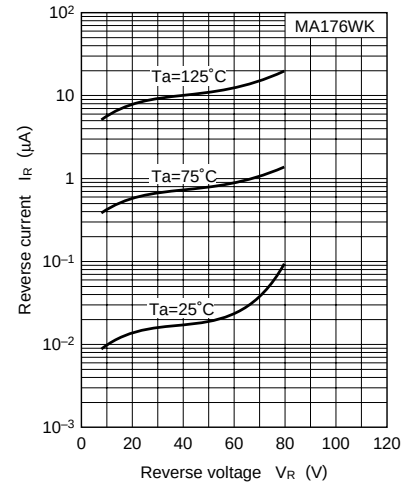
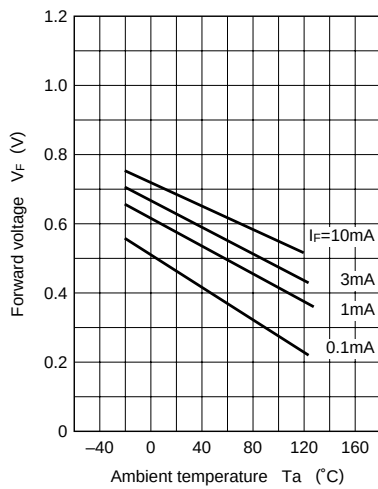
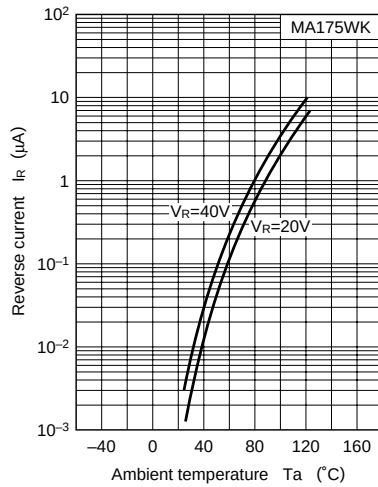
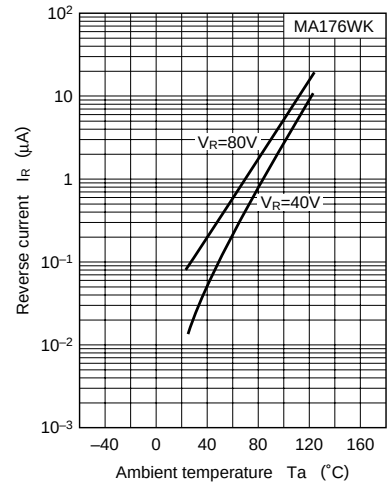
■ Electrical Characteristics (Ta= 25°C)

Parameter		Symbol	Condition	min	typ	max	Unit
Reverse current (DC)	MA175WK	I_R	$V_R = 35V$			0.1	μA
	MA176WK		$V_R = 75V$			0.1	
Forward voltage (DC)		V_F	$I_F = 100mA$			1.2	V
Reverse voltage (DC)	MA175WK	V_R	$I_R = 100\mu A$	40			V
	MA176WK			80			
Terminal capacitance		C_t	$V_R = 0V, f = 1MHz$			4	pF
Reverse recovery time		t_{rr}^*	$I_F = 10mA, V_R = 6V$ $I_{rr} = 0.1 \cdot I_R, R_L = 100\Omega$			3	ns

Note 1 : Rated input/output frequency : 100MHz

2 : * t_{rr} measuring circuit



$I_F - V_F$  $I_R - V_R$  $I_R - V_R$  $V_F - T_a$  $I_R - T_a$  $I_R - T_a$  $C_t - V_R$ 