

**MA3V175E, MA3V176E (MA175WK, MA176WK)**

Silicon epitaxial planar type

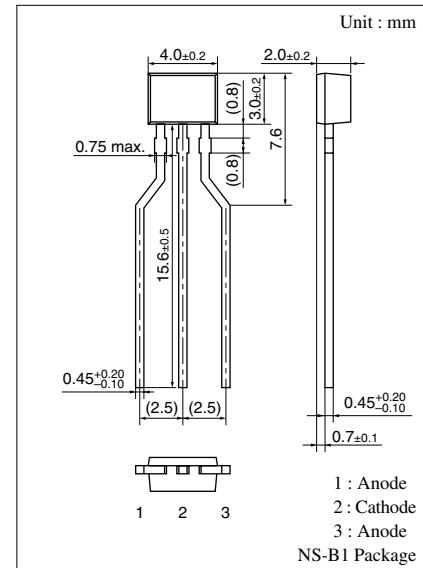
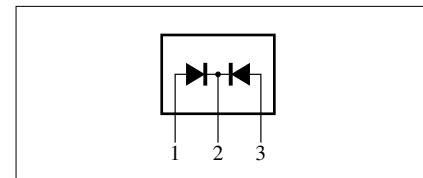
For switching circuits

**■ Features**

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

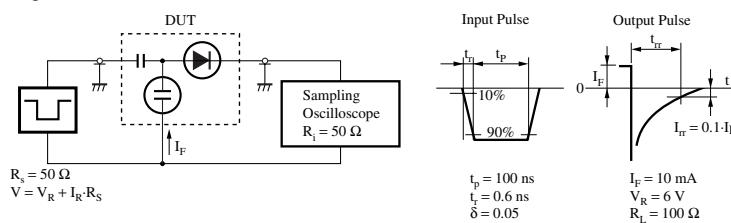
**■ Absolute Maximum Ratings  $T_a = 25^\circ\text{C}$** 

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

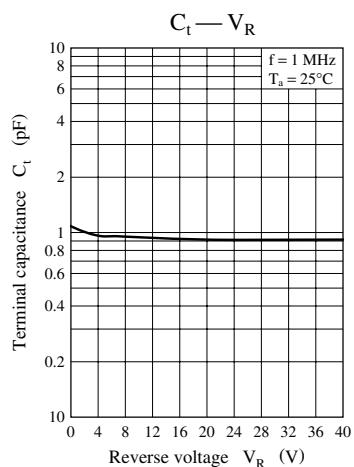
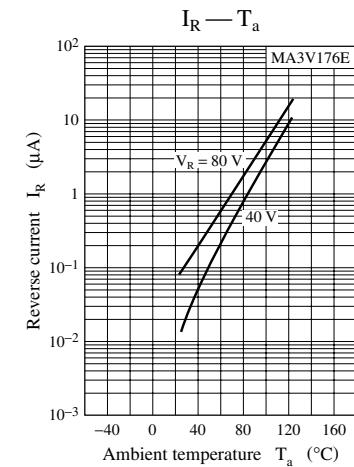
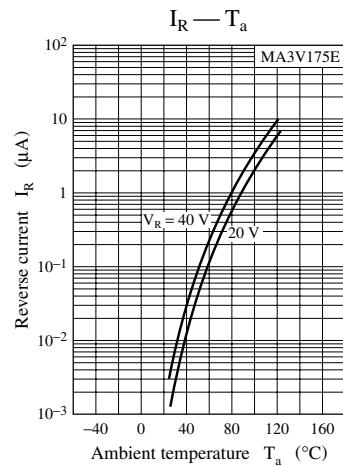
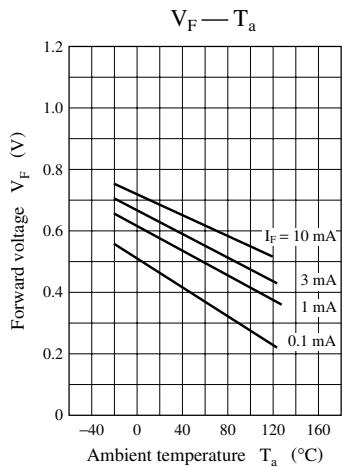
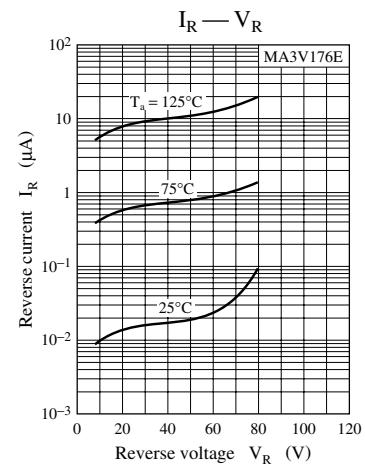
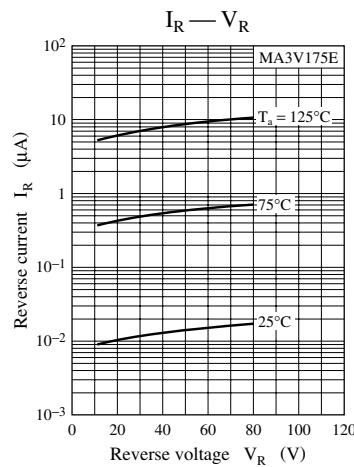
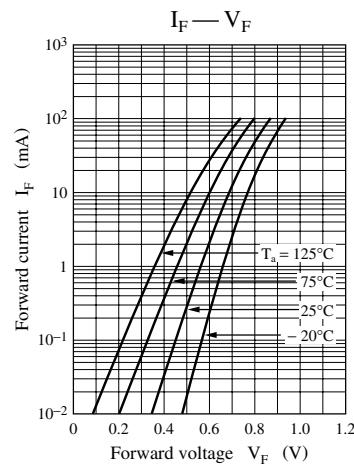
Note) \* :  $t = 1 \text{ s}$ **Internal Connection****■ Electrical Characteristics  $T_a = 25^\circ\text{C}$** 

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

Note) 1. Rated input/output frequency: 100 MHz

2. \* :  $t_{rr}$  measuring circuit

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



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