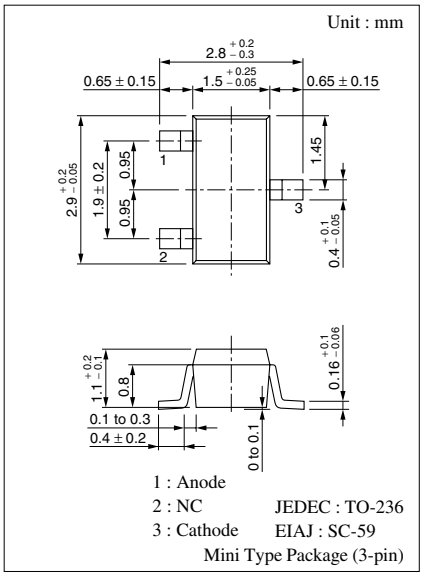
MA3X727

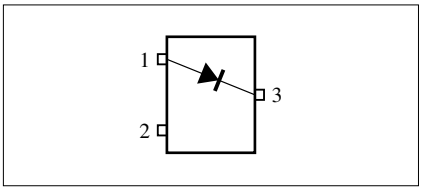
Silicon epitaxial planar type

For super-high speed switching circuit
For small current rectification



Marking Symbol: M1Z

Internal Connection



■ Features

- Sealed in the Mini type mold. High breakdown voltage type (V_R = 50 V)
- Allowing to rectify under ($I_{F(AV)}$ = 200 mA) condition
- High reliability

■ Absolute Maximum Ratings $T_a = 25°C$

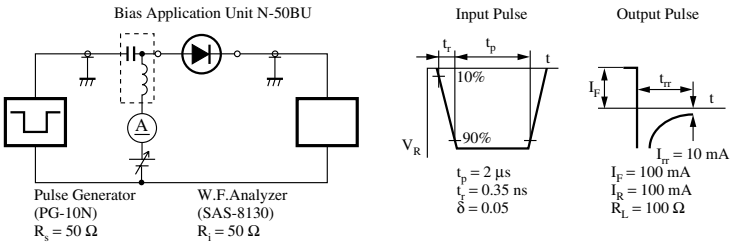
Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V_R	50	V
Repetitive peak reverse voltage	V_{RRM}	50	V
Peak forward current	I_{FM}	300	mA
Average forward current	$I_{F(AV)}$	200	mA
Non-repetitive peak forward surge current*	I_{FSM}	1	A
Junction temperature	T_j	150	°C
Storage temperature	T_{stg}	−55 to +150	°C

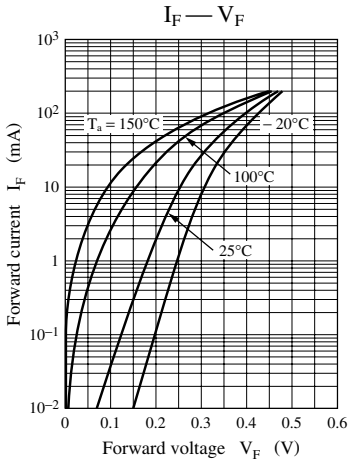
Note) * : The peak-to-peak value in one cycle of 50 Hz sine-wave (non-repetitive)

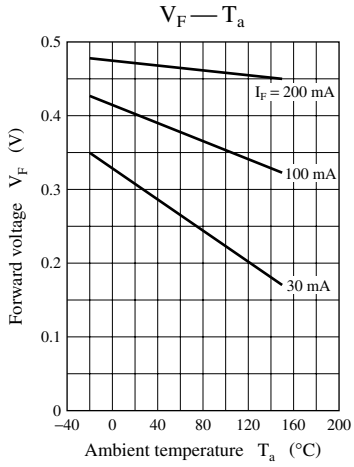
■ Electrical Characteristics $T_a = 25°C$

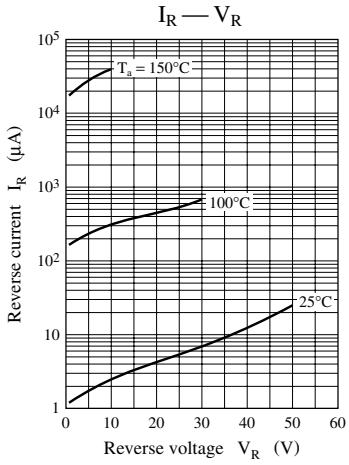
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	I_R	V_R = 50 V			200	μA
Forward voltage (DC)	V_{F1}	I_F = 30 mA			0.36	V
	V_{F2}	I_F = 200 mA			0.55	V
Terminal capacitance	C_t	V_R = 0 V, f = 1 MHz		30		pF
Reverse recovery time*	t_{rr}	$I_F = I_R$ = 100 mA I_{rr} = 10 mA, R_L = 100 Ω		3.0		ns

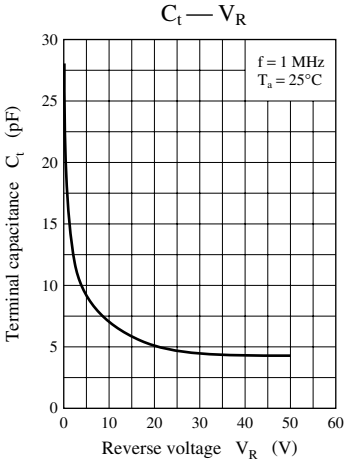
Note) 1. Schottky barrier diode is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment
2. Rated input/output frequency: 1 000 MHz
3. * : t_{rr} measuring instrument

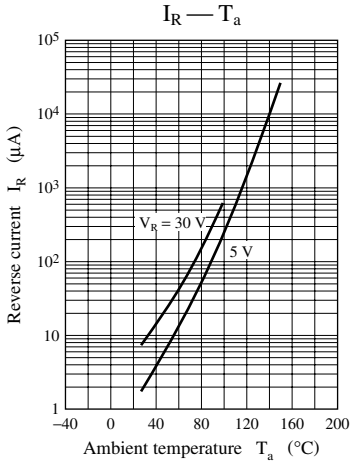



I_F — V_F
Forward current I_F (mA)
Forward voltage V_F (V)
T_a = 150°C
100°C
25°C
– 20°C


V_F — T_a
Forward voltage V_F (V)
Ambient temperature T_a (°C)
I_F = 200 mA
100 mA
30 mA


I_R — V_R
Reverse current I_R (μA)
Reverse voltage V_R (V)
T_a = 150°C
100°C
25°C


C_t — V_R
Terminal capacitance C_t (pF)
Reverse voltage V_R (V)
f = 1 MHz
T_a = 25°C


I_R — T_a
Reverse current I_R (μA)
Ambient temperature T_a (°C)
V_R = 30 V
5 V