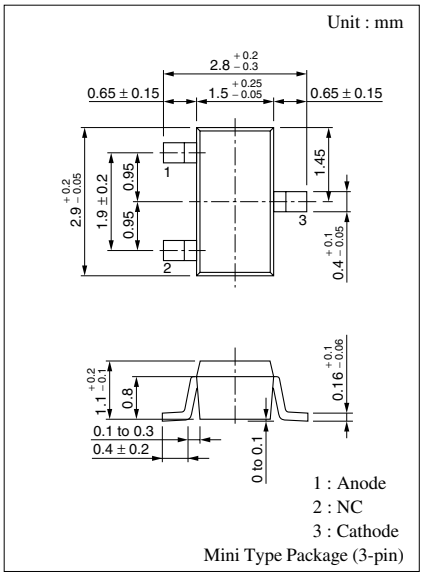
MA3XD15

Silicon epitaxial planar type

For rectification

For protection against reverse current



■ Features

- Mini type 3-pin package
- Low V_F or Low I_R type: $V_F < 0.45$ V, $I_R < 100$ µA
- Allowing to rectify under ($I_{F(AV)} = 1$ A) condition

■ Absolute Maximum Ratings $T_a = 25°C$

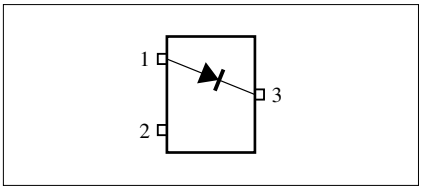
Parameter	Symbol	Rating	Unit
Reverse voltage (DC)	V_R	20	V
Repetitive peak reverse voltage	V_{RRM}	25	V
Non-repetitive peak forward surge current*1	I_{FSM}	3	A
Average forward current*2	$I_{F(AV)}$	1.0	A
Junction temperature	T_j	125	°C
Storage temperature	T_{stg}	−55 to +125	°C

Note) *1 : The peak-to-peak value in one cycle of 50 Hz sine-wave (non-repetitive)

*2 : With a alumina PC board

Marking Symbol: M5N

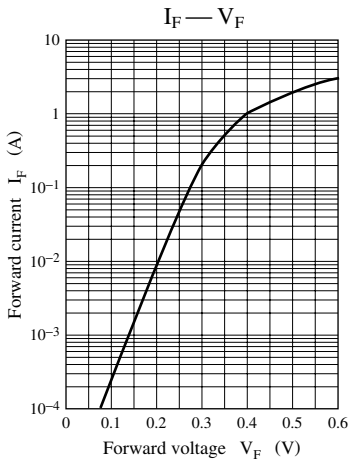
Internal Connection

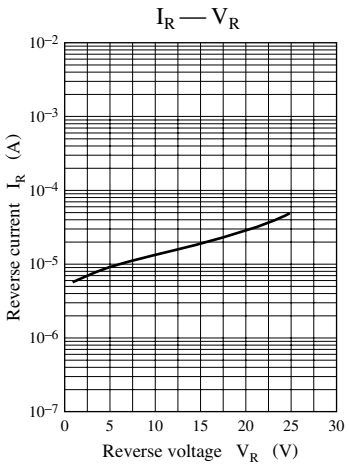


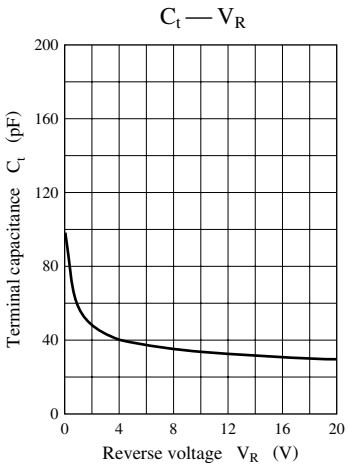
■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	I_R	$V_R = 20$ V			100	µA
Forward voltage (DC)	V_F	$I_F = 1.0$ A			0.45	V
Terminal capacitance	C_t	$V_R = 0$ V, f = 1 MHz		120		pF

Note) 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.


I_F — V_F
Forward current I_F (A)
10
1
10^{-1}
10^{-2}
10^{-3}
10^{-4}
0
0.1
0.2
0.3
0.4
0.5
0.6
Forward voltage V_F (V)


I_R — V_R
Reverse current I_R (A)
10^{-2}
10^{-3}
10^{-4}
10^{-5}
10^{-6}
10^{-7}
0
5
10
15
20
25
30
Reverse voltage V_R (V)


C_t — V_R
Terminal capacitance C_t (pF)
200
160
120
80
40
0
0
4
8
12
16
20
Reverse voltage V_R (V)