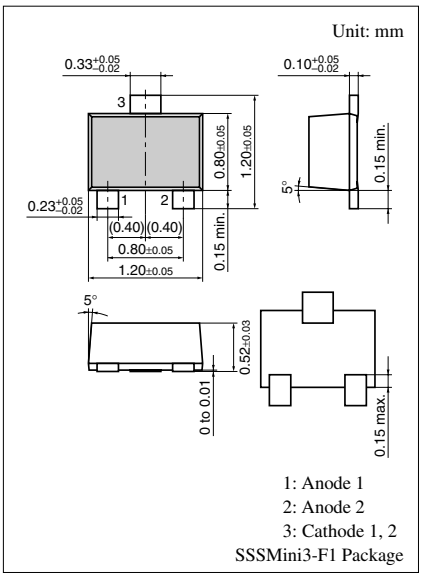
MAS3795E

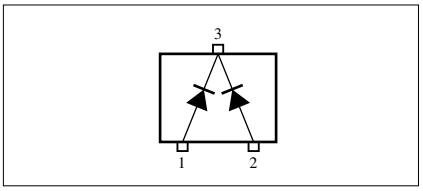
Silicon epitaxial planar type

For high-speed switching circuits



Marking Symbol: M3

Internal Connection



■ Features

- High-density mounting is possible
- Optimum for high frequency rectification because of its short reverse recovery time (t_{rr})
- Low forward voltage V_F optimum for low voltage rectification V_F = < 0.3 V (at I_F = 1 mA)
- SSS-Mini type 3-pin package

■ Absolute Maximum Ratings T_a = 25°C

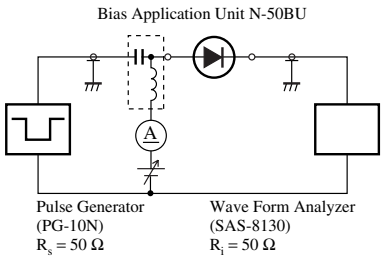
Parameter		Symbol	Rating	Unit
Reverse voltage (DC)		V_R	30	V
Peak reverse voltage		V_{RM}	30	V
Forward current (DC)	Single	I_F	30	mA
	Double		20	
Peak forward current	Single	I_{FM}	150	mA
	Double		110	
Junction temperature		T_j	125	°C
Storage temperature		T_{stg}	−55 to +125	°C

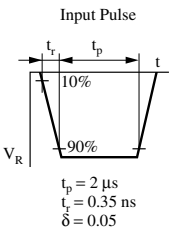
■ Electrical Characteristics T_a = 25°C ± 3°C

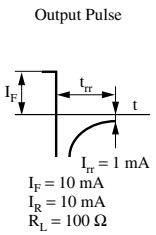
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Reverse current (DC)	I_R	V_R = 30 V			30	µA
Forward voltage (DC)	V_{F1}	I_F = 1 mA			0.3	V
	V_{F2}	I_F = 30 mA			1.0	
Terminal capacitance	C_t	V_R = 1 V, f = 1 MHz		1.5		pF
Reverse recovery time *	t_{rr}	I_F = I_R = 10 mA I_{rr} = 1 mA, R_L = 100 Ω		1.0		ns
Detection efficiency	η	V_{in} = 3 $V_{(peak)}$, f = 30 MHz R_L = 3.9 kΩ, C_L = 10 pF		65		%

Note) 1. This product 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.

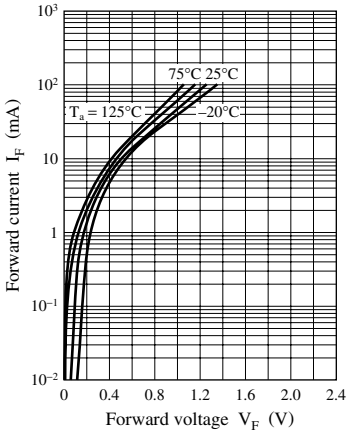
2. Rated input/output frequency: 2 GHz 3. *: t_{rr} measuring instrument



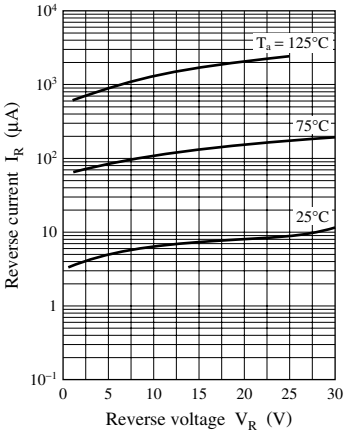




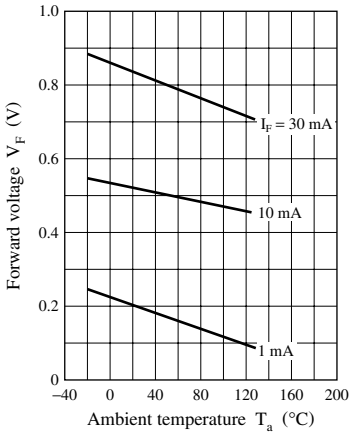
I_F — V_F



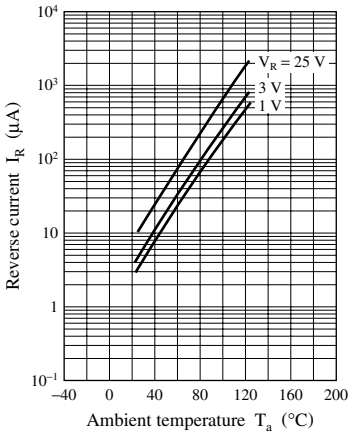
I_R — V_R



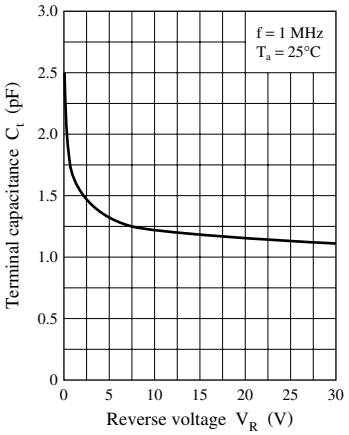
V_F — T_a



I_R — T_a



C_t — V_R



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