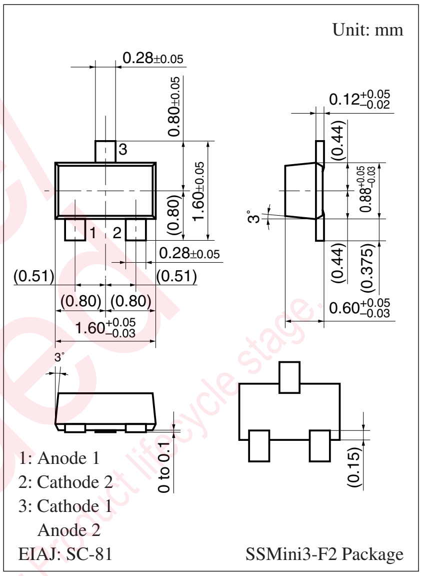
MA3S137 (MA137)

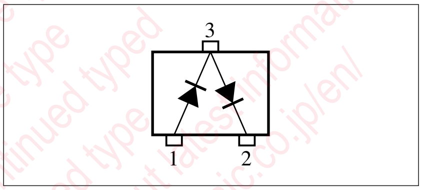
Silicon epitaxial planar type

For high-speed switching circuits



Marking Symbol: MS

Internal Connection



■ Features

- Two isolated elements contained in one package, allowing high-density mounting
- Two diodes are connected in series in the package

■ Absolute Maximum Ratings $T_a = 25°C$

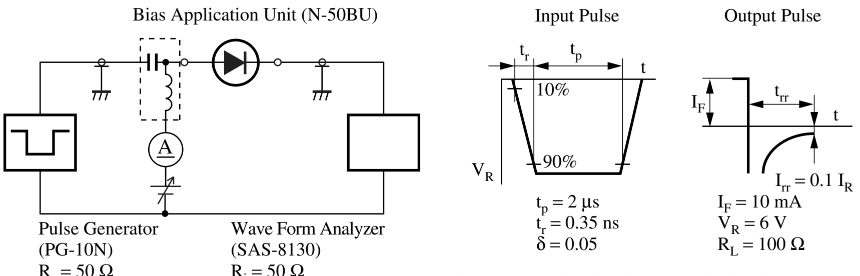
Parameter		Symbol	Rating	Unit
Reverse voltage		V_R	80	V
Maximum peak reverse voltage		V_{RM}	80	V
Forward current	Single	I_F	100	mA
	Series		65	
Peak forward current	Single	I_{FM}	225	mA
	Series		145	
Non-repetitive peak forward surge current *	Single	I_{FSM}	500	mA
	Series		325	
Junction temperature		T_j	150	°C
Storage temperature		T_{stg}	−55 to +150	°C

Note) *: t = 1 s

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

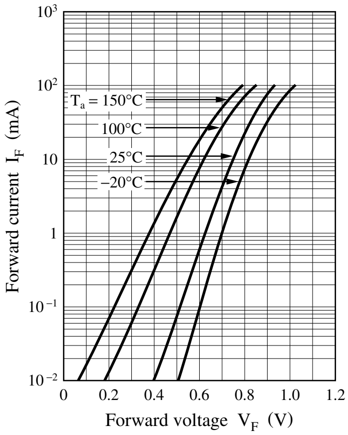
Parameter	Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage	V_F	$I_F = 100$ mA			1.2	V
Reverse voltage	V_R	$I_R = 100$ µA	80			V
Reverse current	I_R	$V_R = 75$ V			100	nA
Terminal capacitance	C_t	$V_R = 0$ V, f = 1 MHz			2	pF
Reverse recovery time *	t_{rr}	$I_F = 10$ mA, $V_R = 6$ V $I_{rr} = 0.1\ I_R$, $R_L = 100\ \Omega$			3	ns

Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.
2. Absolute frequency of input and output is 100 MHz.
3. *: t_{rr} measurement circuit

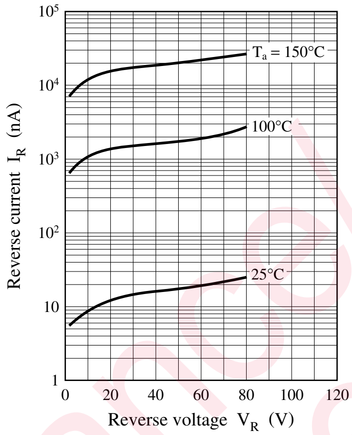


Note) The part number in the parenthesis shows conventional part number.

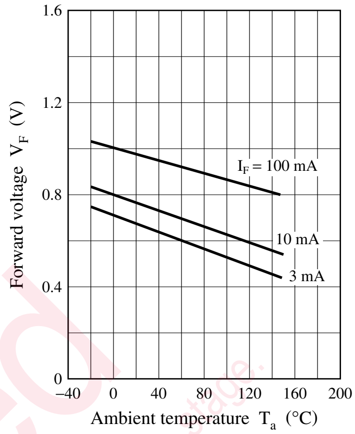
I_F — V_F



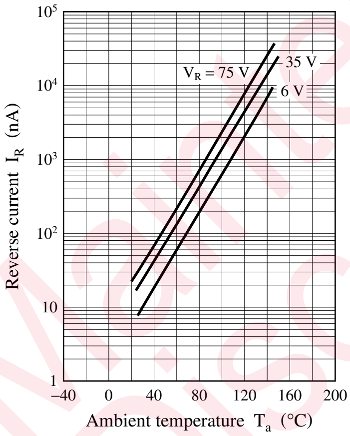
I_R — V_R



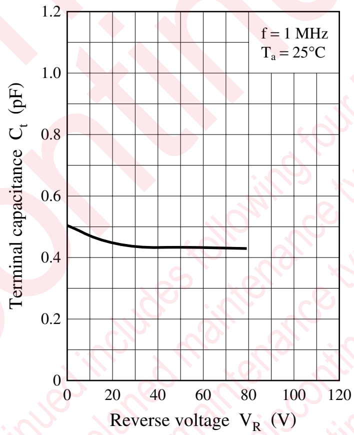
V_F — T_a



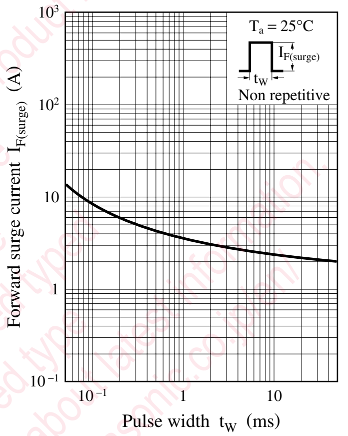
I_R — T_a



C_t — V_R



$I_{F(surge)}$ — t_W



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