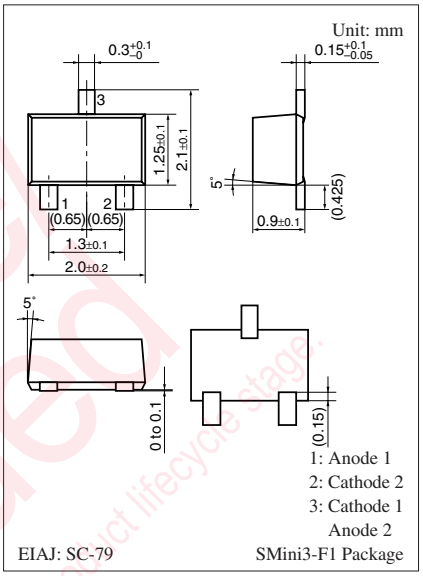
MA3J143 (MA143), MA3J143A (MA143A)

Silicon epitaxial planar type

For switching circuits



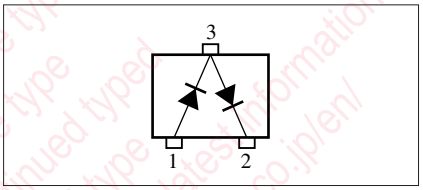
■ Features

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

Marking Symbol:

- MA3J143: MC
- MA3J143A: MP

Internal Connection



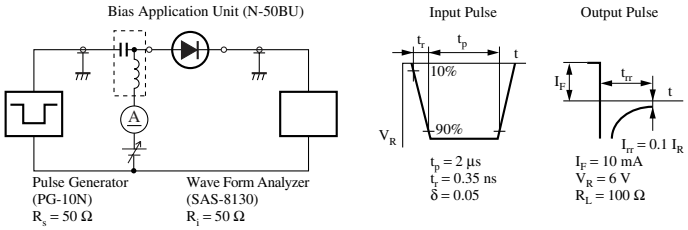
■ Absolute Maximum Ratings $T_a = 25°C$

Parameter		Symbol	Rating	Unit
Reverse voltage	MA3J143	V_R	40	V
	MA3J143A		80	
Maximum peak reverse voltage	MA3J143	V_{RM}	40	V
	MA3J143A		80	
Forward current	Single	I_F	100	mA
	Series		65	
Peak forward current	Single	I_{FM}	200	mA
	Series		130	
Junction temperature		T_j	150	°C
Storage temperature		T_{stg}	−55 to +150	°C

■ 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	MA3J143	V_R	$I_R = 100$ µA	40			V
	MA3J143A			80			
Reverse current	MA3J143	I_R	$V_R = 40$ V			100	nA
	MA3J143A		$V_R = 75$ V			100	
Terminal capacitance		C_{t1} *1	$V_R = 0$ V, f = 1 MHz			5.5	pF
		C_{t2} *2				3.0	
Reverse recovery time *3		t_{rr1} *1	$I_F = 10$ mA, $V_R = 6$ V		150		ns
		t_{rr2} *2	$I_{rr} = 0.1\ I_R$, $R_L = 100\ \Omega$		9		

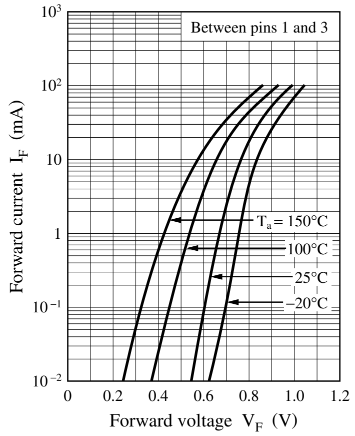
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.
2. Absolute frequency of input and output is 100 MHz.
3. ∗1: Between pins 2 and 3
∗2: Between pins 1 and 3
∗3: t_{rr} measurement circuit



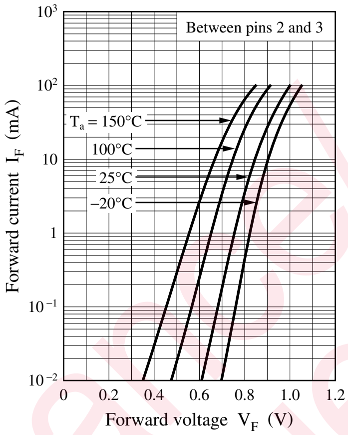
Note) The part numbers in the parenthesis show conventional part number.

Characteristics charts of MA3J143

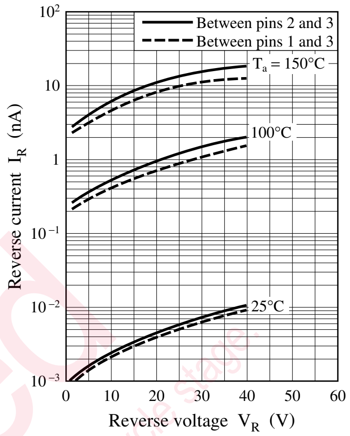
I_F — V_F



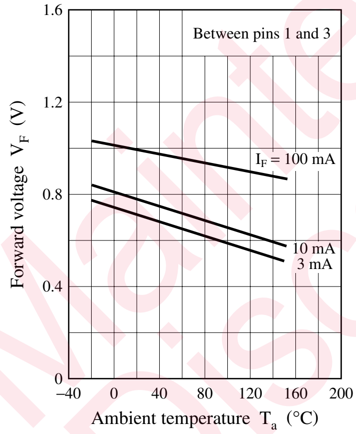
I_F — V_F



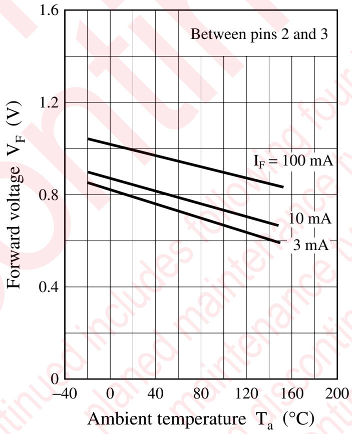
I_R — V_R



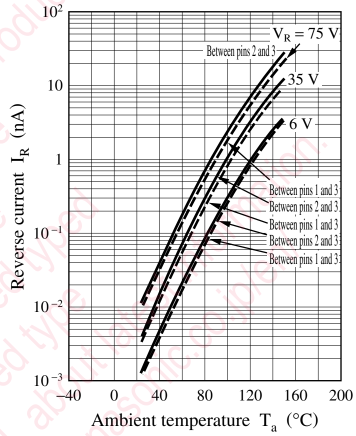
V_F — T_a



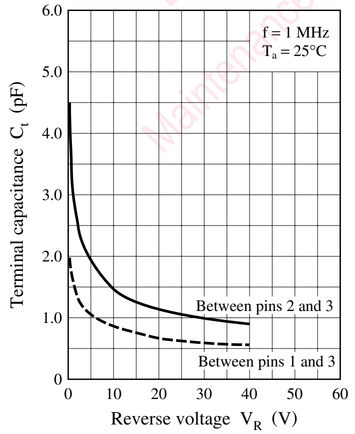
V_F — T_a



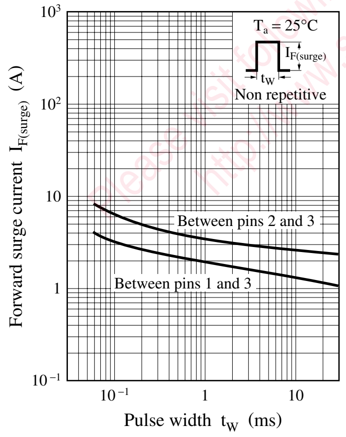
I_R — T_a



C_t — V_R

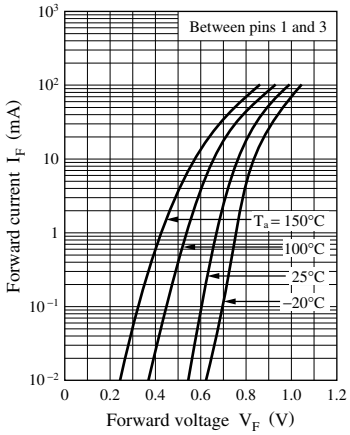


$I_{F(surge)}$ — t_W

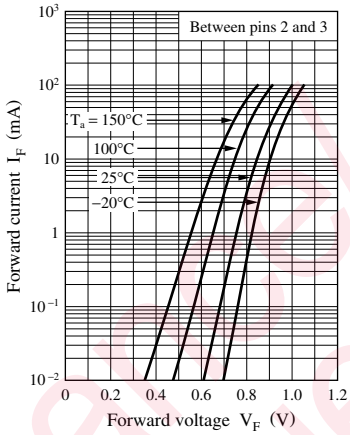


Characteristics charts of MA3J143A

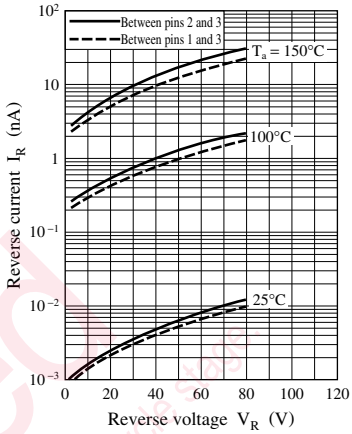
I_F — V_F



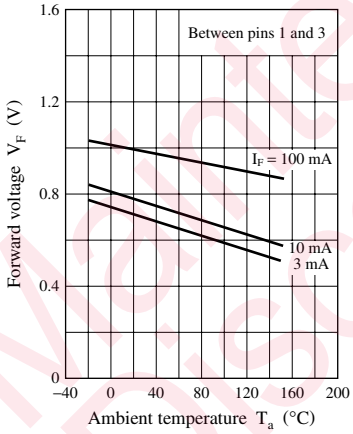
I_F — V_F



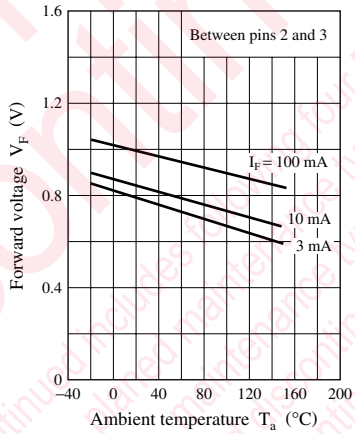
I_R — V_R



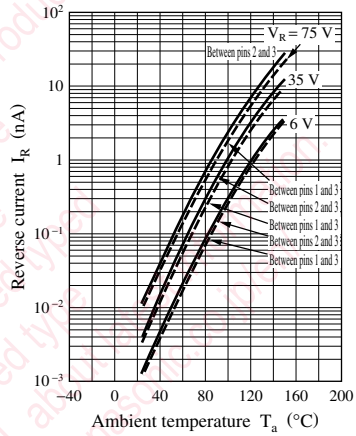
V_F — T_a



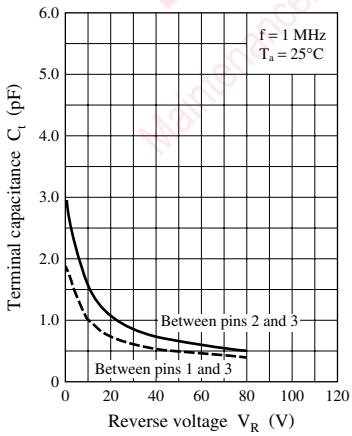
V_F — T_a



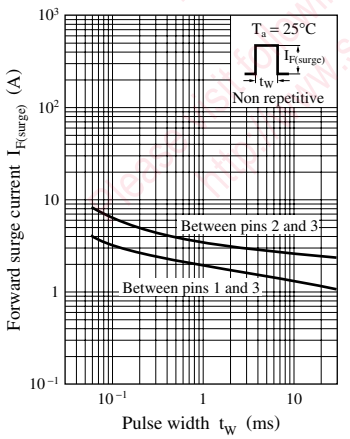
I_R — T_a



C_t — V_R



$I_{F(surge)}$ — t_W



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