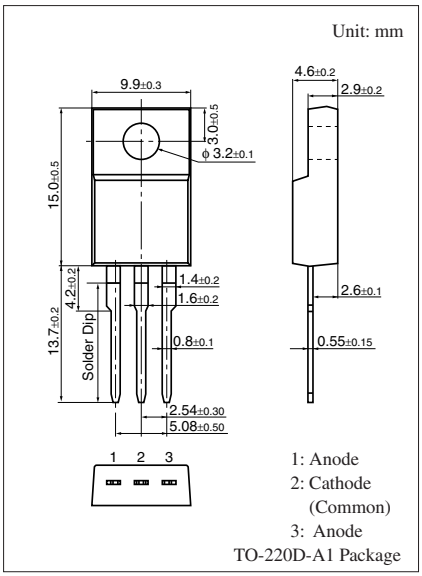
MA3D752 (MA7D52), MA3D752A (MA7D52A)

Silicon epitaxial planar type (cathode common)

For switching mode power supply



■ Features

- Low forward voltage V_F
- High dielectric breakdown voltage: > 5 kV
- Easy-to-mount, due to its V cut lead end

■ Absolute Maximum Ratings $T_a = 25°C$

Parameter		Symbol	Rating	Unit
Repetitive peak reverse voltage	MA3D752	V_{RRM}	40	V
	MA3D752A		45	
Non-repetitive peak forward surge voltage	MA3D752	V_{RSM}	40	V
Forward current (Average)		$I_{F(AV)}$	20	A
Non-repetitive peak forward surge current *		I_{FSM}	120	A
Junction temperature		T_j	−40 to +125	°C
Storage temperature		T_{stg}	−40 to +125	°C

Note) ∗: Half sine wave; 10 ms/cycle

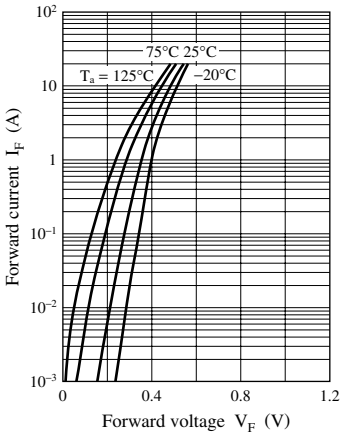
■ Electrical Characteristics $T_a = 25°C \pm 3°C$

Parameter		Symbol	Conditions	Min	Typ	Max	Unit
Forward voltage		V_F	I_F = 10 A, T_C = 25°C			0.55	V
Reverse current	MA3D752	I_R	V_R = 40 V, T_C = 25°C			5	mA
	MA3D752A		V_R = 45 V, T_C = 25°C			5	
Thermal resistance (j-c)		$R_{th(j-c)}$				3.0	°C/W

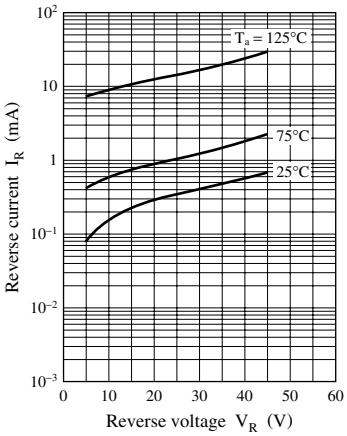
Note) 1. Measuring methods are based on JAPANESE INDUSTRIAL STANDARD JIS C 7031 measuring methods for diodes.
2. This product is sensitive to electric shock (static electricity, etc.). Due attention must be paid on the charge of a human body and the leakage of current from the operating equipment.
3. Absolute frequency of input and output is 100 MHz.

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

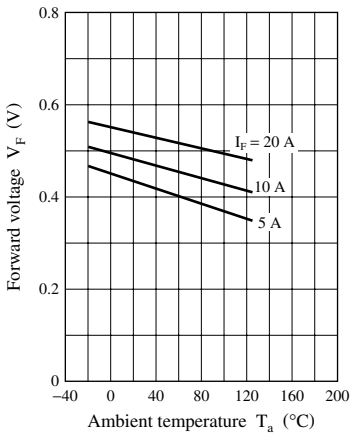
I_F — V_F



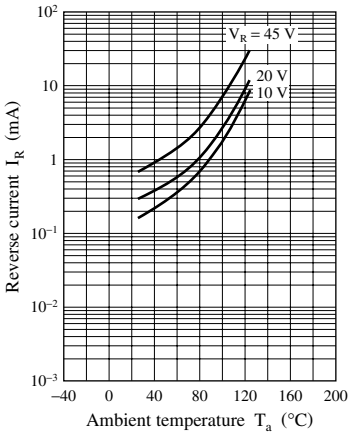
I_R — V_R



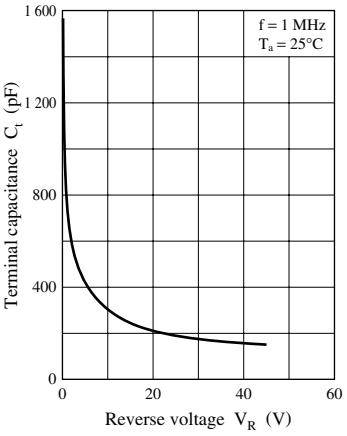
V_F — T_a



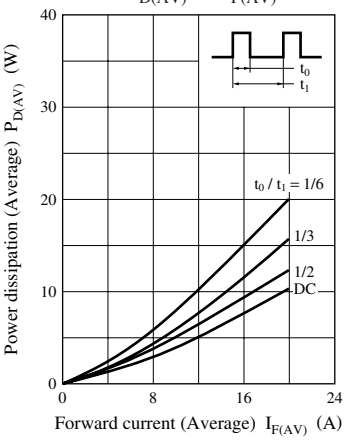
I_R — T_a



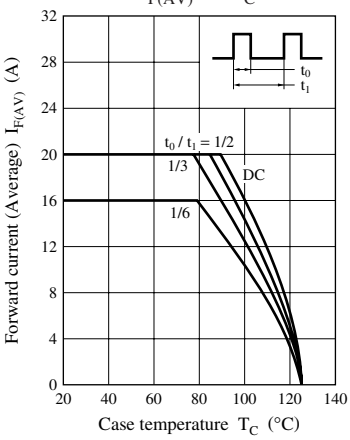
C_t — V_R



$P_{D(AV)}$ — $I_{F(AV)}$



$I_{F(AV)}$ — T_C



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