

TDF210M

Surface Mount Fast Recovery Bridge Rectifier Reverse Voltage - 1000 V Forward Current - 2 A

Features

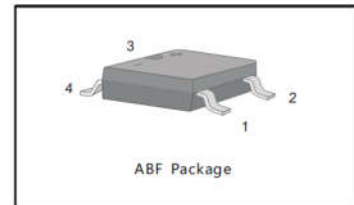
- Glass Passivated Chip Junction
- High Surge Current Capability

Mechanical Data

- Package: ABF
- Terminals: Solderable per MIL-STD-750, Method 2026

PINNING

PIN	DESCRIPTION
1	Input Pin (~)
2	Input Pin (~)
3	Output Anode (+)
4	Output Cathode (-)



Maximum Ratings and Electrical characteristics

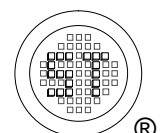
Single-phase, half-wave, 60 Hz, resistive or inductive load rating at 25°C, unless otherwise specified, for capacitive load, derate current by 20 %.

Parameter	Symbols	TDF210M	Units
	Marking	TDF210M	-
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1000	V
Maximum RMS voltage	V_{RMS}	700	V
Maximum DC Blocking Voltage	V_{DC}	1000	V
Average Forward Current $T_C = 115^\circ\text{C}$	$I_{F(AV)}$	2	A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load (JEDEC Method)	I_{FSM}	60	A
Maximum Instantaneous Forward Voltage at 2 A	V_F	1.3	V
Maximum DC Reverse Current at Rated DC Blocking Voltage $T_a = 25^\circ\text{C}$ $T_a = 125^\circ\text{C}$	I_R	5 100	μA
Typical Junction Capacitance ¹⁾	C_j	25	pF
Typical Thermal Resistance ²⁾	$R_{\theta JA}$	80	$^\circ\text{C/W}$
Maximum Reverse Recovery Time ³⁾	t_{rr}	160	ns
Operating and Storage Temperature Range	T_j, T_{stg}	- 55 to + 150	$^\circ\text{C}$

¹⁾ Measured at 1 MHz and applied reverse voltage of 4 V D.C.

²⁾ Mounted on glass epoxy PC board with 4 × 1.5" × 1.5" (3.81 × 3.81 cm) copper pad.

³⁾ Measured with $I_F = 0.5 \text{ A}$, $I_R = 1 \text{ A}$, $I_{rr} = 0.25 \text{ A}$.



Electrical Characteristics Curves

Fig.1 Average Rectified Output Current Derating Curve

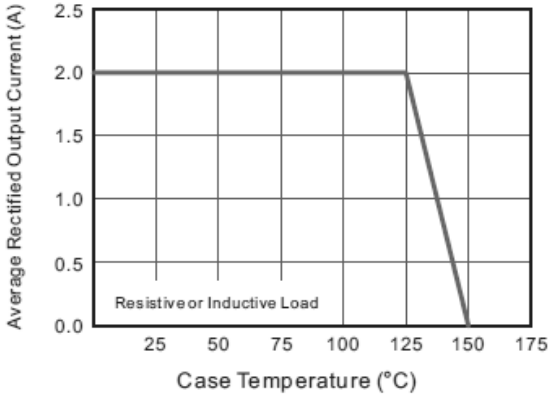


Fig.2 Typical Reverse Characteristics

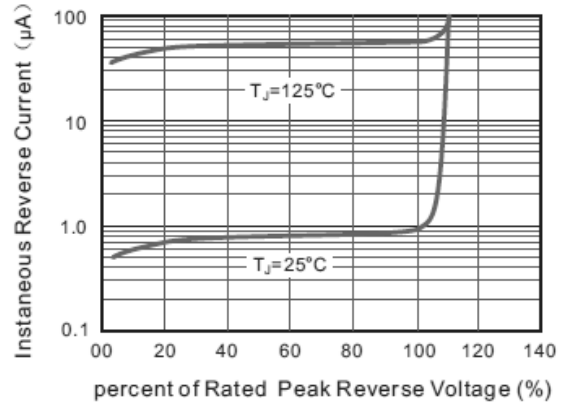


Fig.3 Typical Instantaneous Forward Characteristics

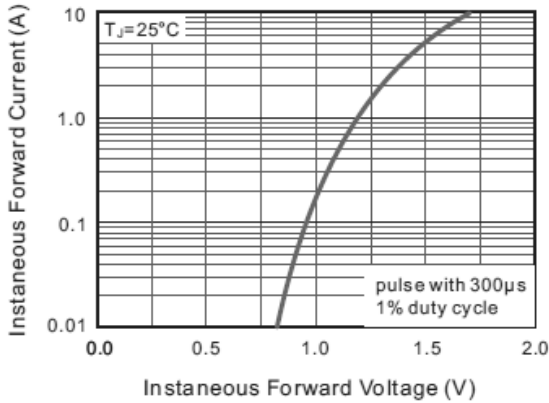


Fig.4 Typical Junction Capacitance

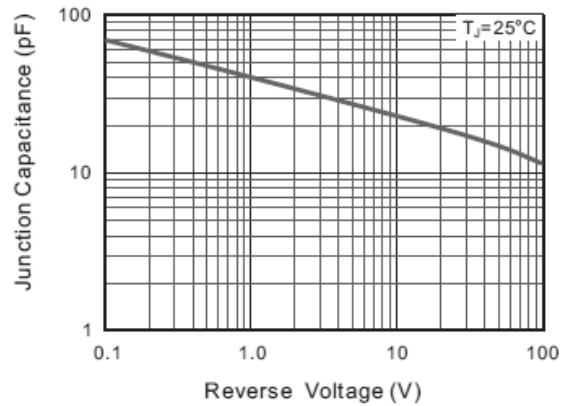
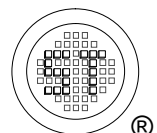
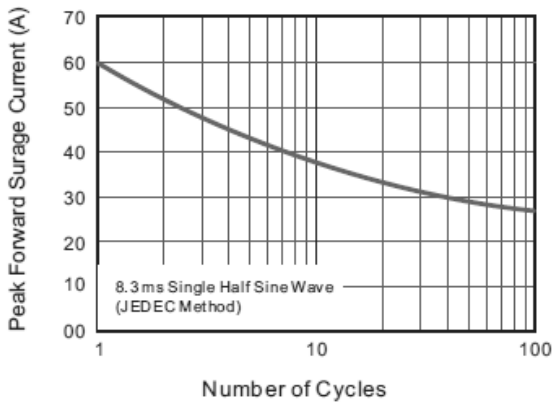


Fig.5 Maximum Non-Repetitive Peak Forward Surge Current

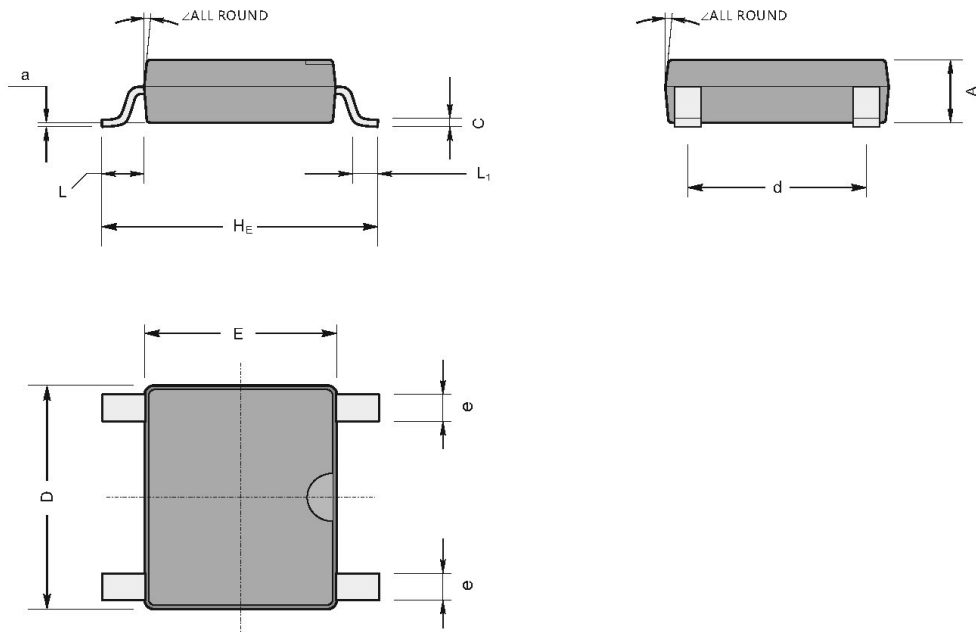


TDF210M

PACKAGE OUTLINE

ABF

Plastic surface mounted package; 4 leads



UNIT	A	C	D	E	H_E	d	e	L	L_1	a	\sphericalangle
mm	1.2	0.22	5.2	4.5	6.4	4.2	0.7	0.95	0.6	0.2	7°
	1	0.15	4.9	4.2	6	3.6	0.5				

Recommended Soldering Footprint

