

DLM10 Silicon Diffused Junction Type 1.0A Ultrahigh-Speed Rectifier

Applications

- Switching regulators, high-frequency rectification.

Features

- Fast reverse recovery time and small switching loss.
- Reverse voltage : $V_{RM}=200$ to $400V$.
- Average rectified current : $I_O=1.0A$.

Specifications

Absolute Maximum Ratings at $T_a=25^\circ C$

Parameter	Symbol	Conditions	DLM10C	DLM10E	Unit
Peak Reverse Voltage	V_{RM}		200	400	V
Average Rectified Current	I_O	50Hz, resistive load, no fin, $T_a=57^\circ C$ resistive load (L=8mm, print land 10×10mm)	1.0		A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1cycle	30		A
Junction Temperature	T_J		150		$^\circ C$
Storage Temperature	T_{stg}		-40 to +150		$^\circ C$

Electrical Characteristics [DLM10C] at $T_a=25^\circ C$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Forward Voltage	V_F	$I_F=1.0A$			0.98	V
Reverse Current	I_R	$V_{RM}=200V$			10	μA
Reverse Recovery Time	t_{rr}	$I_{FM}=1A, -di/dt=50A/\mu s$			35	ns
Thermal Resistance (Junction-Ambient)	$R_{th(j-a)}$	No heat sink, DLM10 only			115	$^\circ C / W$

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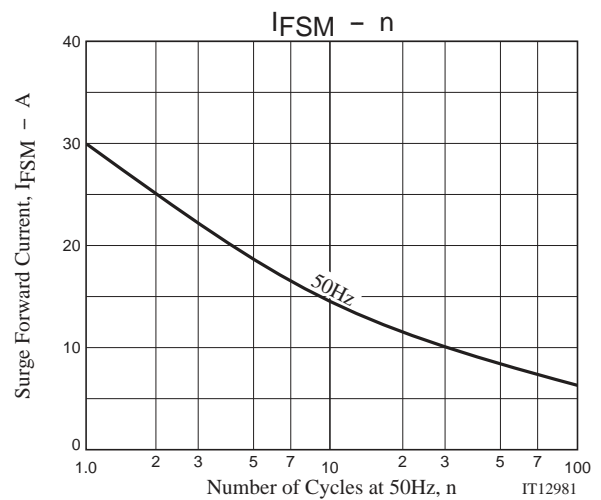
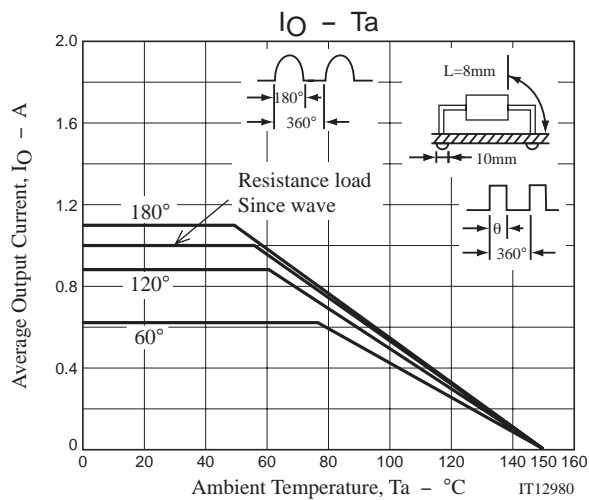
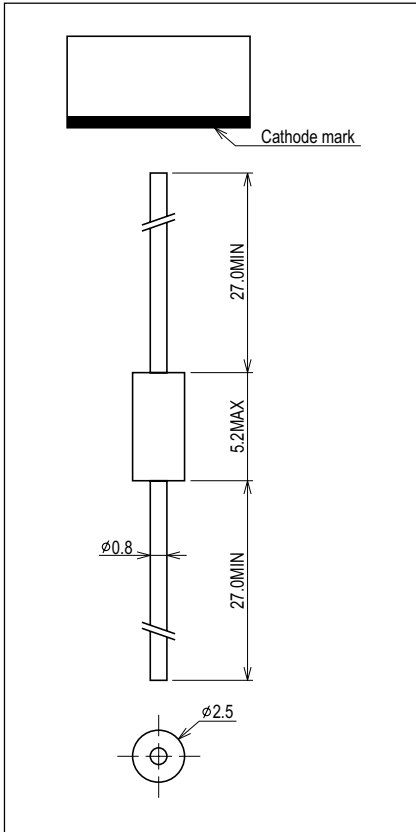
Electrical Characteristics [DLM10E] at $T_a=25^\circ\text{C}$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Forward Voltage	V_F	$I_F=1.0\text{A}$			1.25	V
Reverse Current	I_R	$V_{RM}=400\text{V}$			20	μA
Reverse Recovery Time	t_{rr}	$I_{FM}=1\text{A}, -di/dt=50\text{A}/\mu\text{s}$			30	ns
Thermal Resistance (Junction-Ambient)	$R_{th(j-a)}$	No heat sink, DLM10 only			115	$^\circ\text{C}/\text{W}$

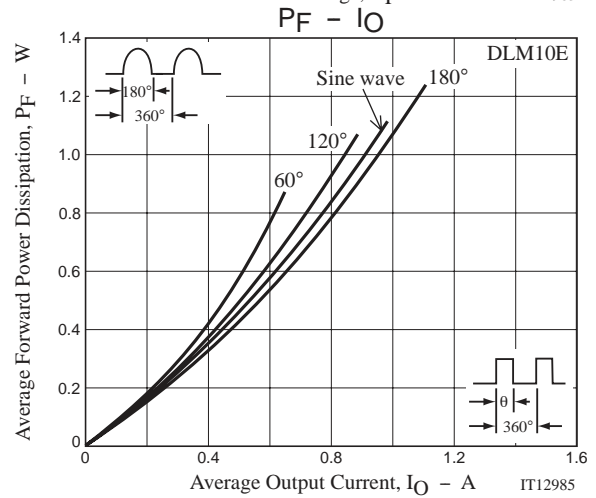
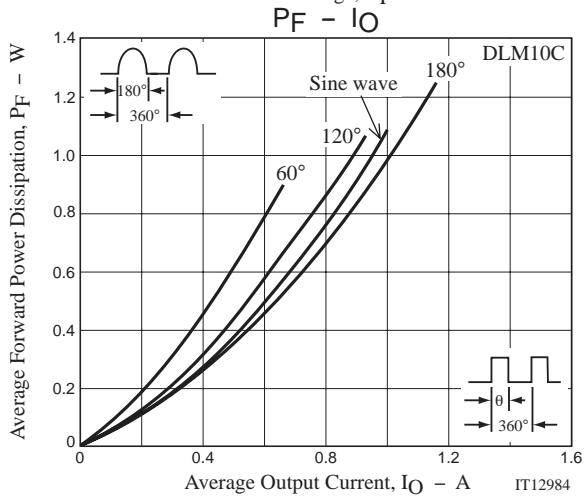
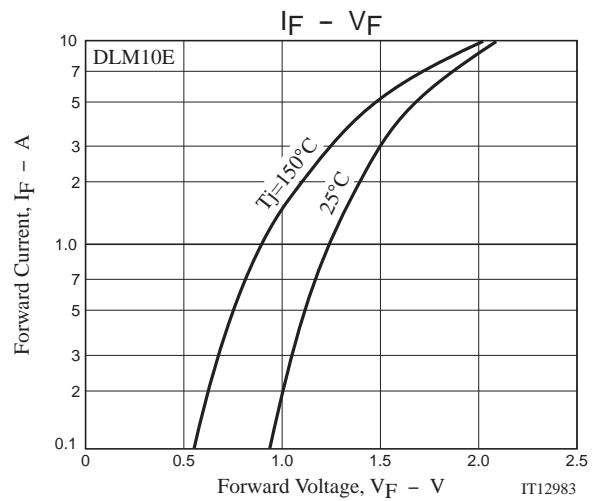
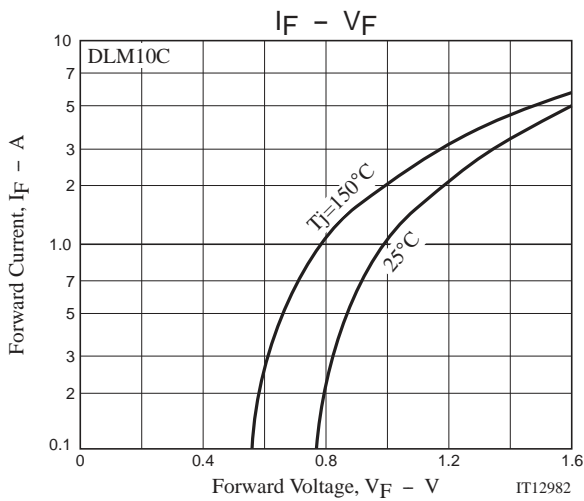
Package Dimensions

unit : mm (typ)

7811-001



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