

**DLE30**

Silicon Diffused Junction Type

3.0A Ultrahigh-Speed Rectifier**Applications**

- Switching regulator, high-frequency rectification.

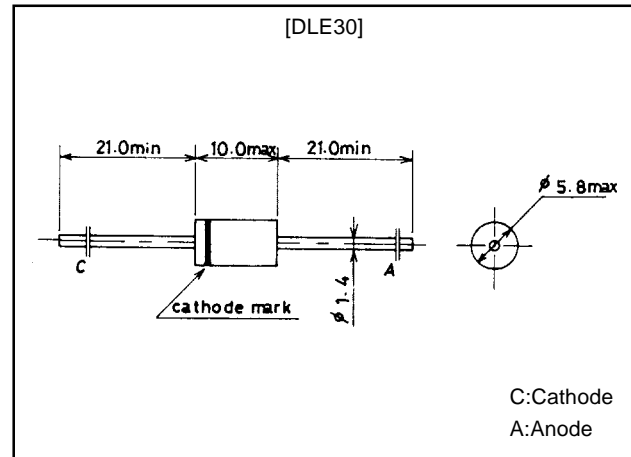
Features

- Fast reverse recovery time and small switching loss.
- Reverse voltage $V_{RM}=100$ to 400V.
- Average rectified current : $I_O=3.0A$.

Package Dimensions

unit:mm

1193

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

Parameter	Symbol	Conditions	DLE30B	DLE30C	DLE30E	Unit
Peak Reverse Voltage	V_{RM}		100	200	400	V
Average Rectified Current	I_O	50Hz, resistive load, no fin, $T_a=29^\circ C$	→	→	1.5	A
		50Hz, resistive load, $T_a=25^\circ C$ (With 20×20×1.0mm Al fin)	→	→	3.0	A
Surge Forward Current	I_{FSM}	50Hz sine wave, 1cycle	→	→	60	A
Junction Temperature	T_j		→	→	150	$^\circ C$
Storage Temperature	T_{stg}		→	→	-40 to +150	$^\circ C$

Electrical Characteristics [DLE30B, C] at $T_a = 25^\circ C$

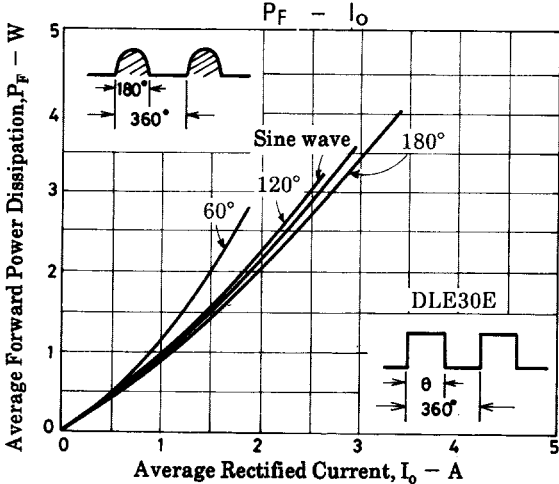
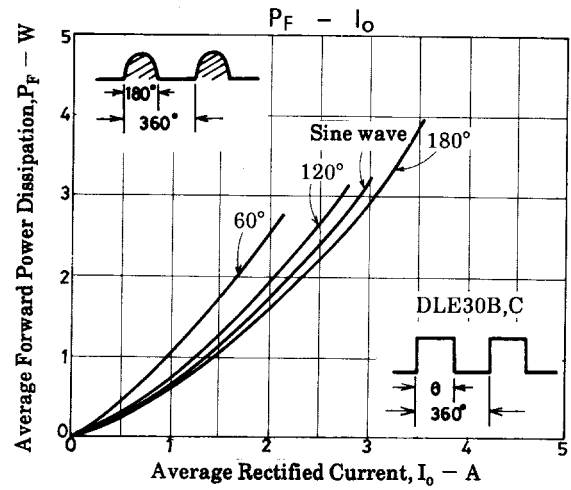
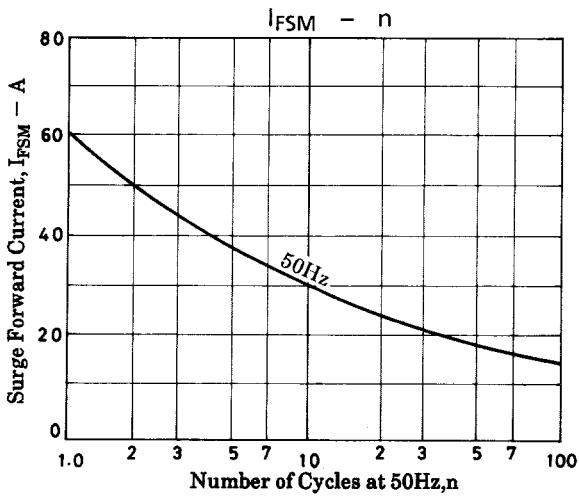
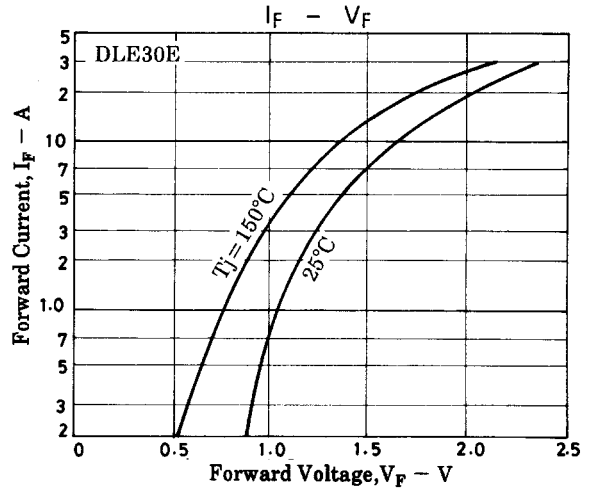
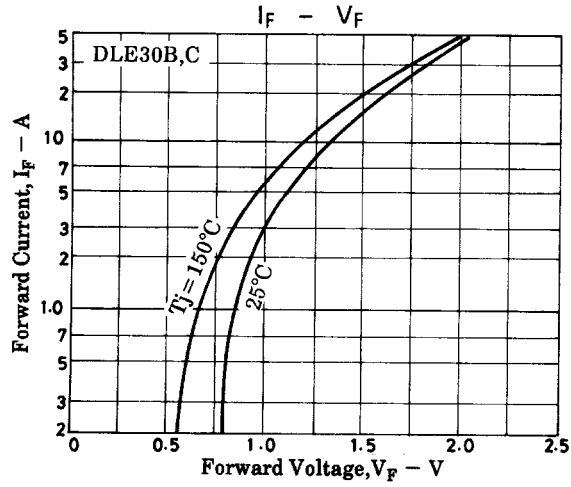
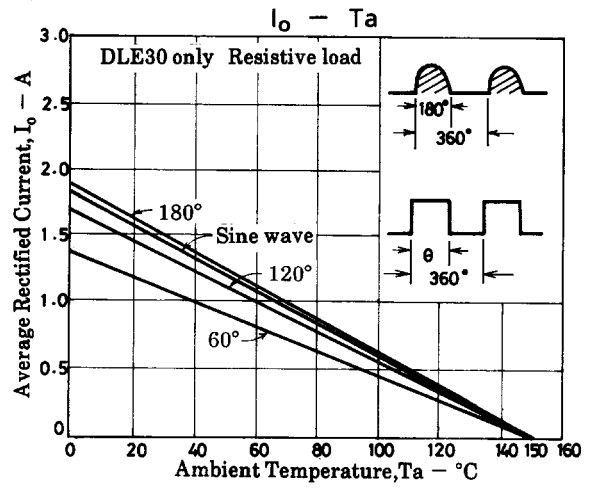
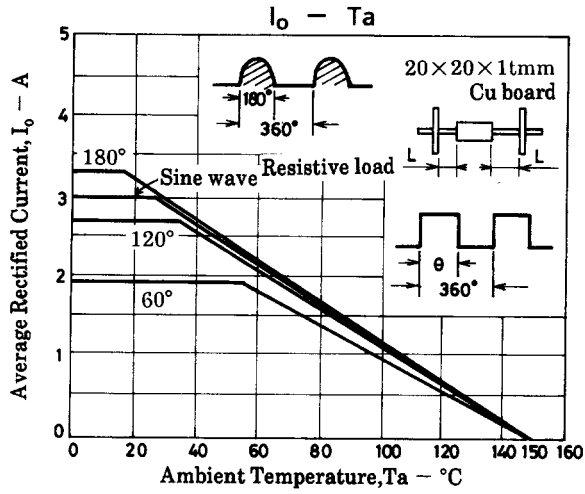
Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Forward Voltage	V_F	$I_F=3.0A$			0.98	V
Reverse Current	I_R	V_R : Each V_{RM}			10	μA
Reverse Recovery Time	t_{rr}	$I_{FM}=1A, -di/dt=50A/\mu s$			35	ns
Thermal Resistance (Junction-Ambient)	$R_{th(j-a)}$	No fin, DLE30 only			80	$^\circ C/W$

Electrical Characteristics [DLE30E] at $T_a = 25^\circ C$

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	
Forward Voltage	V_F	$I_F=1.0A$			1.25	V
Reverse Current	I_R	$V_R=400V$			20	μA
Reverse Recovery Time	t_{rr}	$I_{FM}=1A, -di/dt=50A/\mu s$			30	ns
Thermal Resistance (Junction-Ambient)	$R_{th(j-a)}$	No fin, DLE30 only			80	$^\circ C/W$

Note: The Al fin is mounted on each lead at the point 5mm of the resin.

DLE30



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