

DLE30

Silicon Diffused Junction Type

3.0A Ultrahigh-Speed Rectifier

Applications

· Switching regulator, high-frequency rectification.

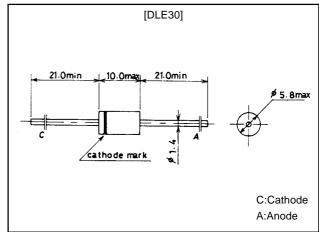
Features

- · 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 Ta = 25°C

Parameter	Symbol	Conditions	DLE30B	DLE30C	DLE30E	Unit
Peak Reverse Voltage	V _{RM}		100	200	400	V
Average Rectified Current	lo	50Hz, resistive load, no fin, Ta=29°C	\rightarrow	\rightarrow	1.5	Α
		50Hz, resistive load, Ta=25°C (With 20×20×1.0tmm Al fin)	\rightarrow	\rightarrow	3.0	А
Surge Forward Current	IFSM	50Hz sine wave, 1cycle	\rightarrow	\rightarrow	60	Α
Junction Temperature	Tj		\rightarrow	\rightarrow	150	°C
Storage Temperature	Tstg		\rightarrow	\rightarrow	-40 to +150	°C

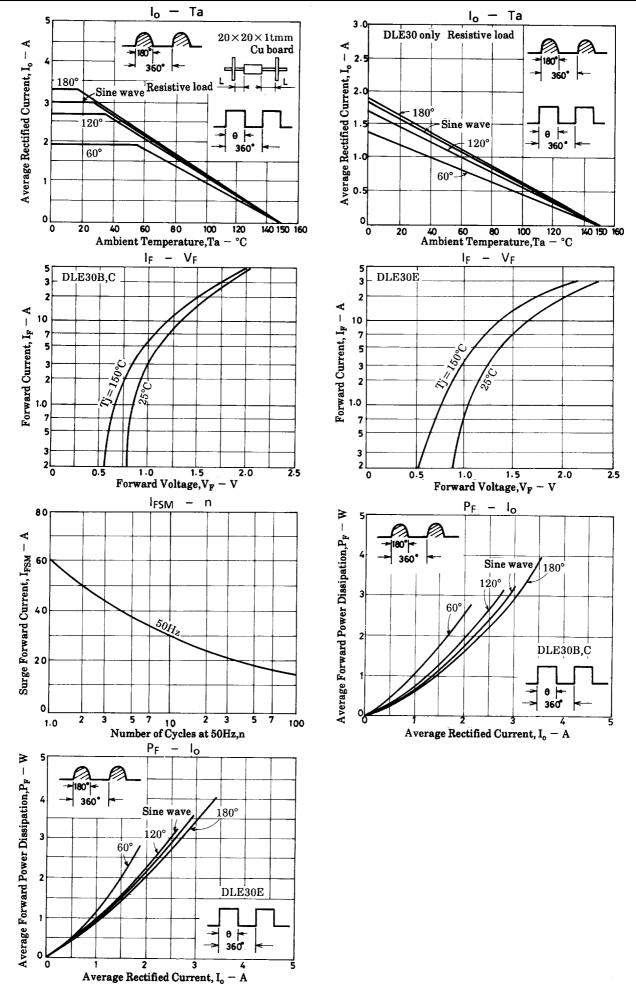
Electrical Characteristics [DLE30B, C] at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	Offic
Forward Voltage	٧ _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/μs			35	ns
Thermal Resistance (Junction-Ambient)	Rth(j-a)	No fin, DLE30 only			80	°C/W

Electrical Characteristics [DLE30E] at Ta = 25°C

Parameter	Symbol	Conditions	Ratings			Unit
			min	typ	max	OIIII
Forward Voltage	٧ _F	I _F =1.0A			1.25	V
Reverse Current	IR	V _R =400V			20	μΑ
Reverse Recovery Time	t _{rr}	I _{FM} =1A, -di/dt=50A/µs			30	ns
Thermal Resistance (Junction-Ambient)	Rth(j-a)	No fin, DLE30 only			80	°C/W

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



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