

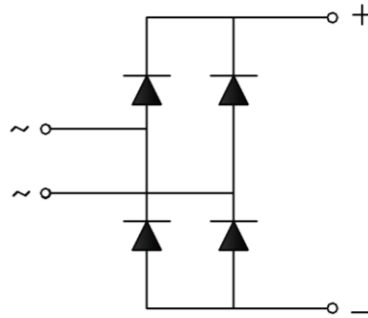
Product Features

- International standard package
- Low forward voltage drop
- Isolation voltage 2000V

Applications

- DC power suppliers for apparatus device
- Input rectifying power supply for PWM converters
- Inverter welders

Maximum Values



04

Symbol	Parameter	Rating			Unit
		QL3502	QL3506	QL3510	
V_{RRM}	Peak reverse repetitive voltage	200	600	1000	V
V_{RSM}	Peak reverse nonrepetitive voltage	300	700	1100	V

Symbol	Parameter	Test condition	Rating	Unit
$I_{F(AV)}$	Mean on-state current	180° half sine wave 50Hz, One side heat radiation, $T_C: 55^\circ\text{C}$	35	A
I_{FSM}	Forward surge current	$t=10\text{ms}$, 50Hz, sin, T_{jm}	400	A
I^2t	I^2t value	$V_R=0.6V_{RRM}$, T_{jm}	600	A^2S
V_{ISO}	Isolation voltage		2000	V
T_j	Operating junction temperature	50Hz, R.M.S, $t=1\text{min}$, $I_{ISO}=1\text{mA}(\text{max})$	-40 to +150	$^\circ\text{C}$
T_{jm}	Rated junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-40 to +150	$^\circ\text{C}$
M_d	Mounting torque (copper plate M5)		2	$\text{N} \cdot \text{M}$
W_t	Weight		52	g

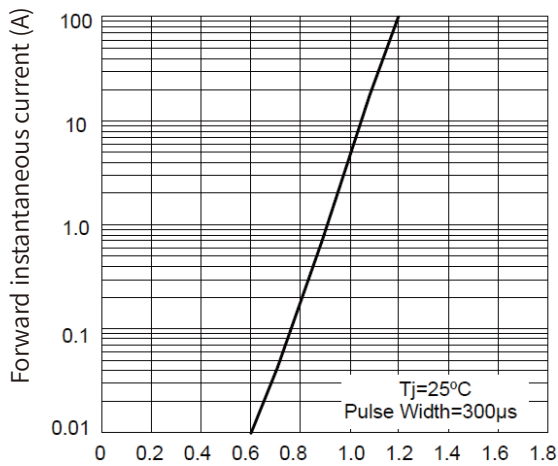
Electrical characteristics

Symbol	Parameter	Test condition	Rating	Unit
I_{RRM}	Peak reverse repetitive current	$V_R=V_{RRM}$, sine half $T_j=25^\circ\text{C}$	5	μA
		$V_R=V_{RRM}$, sine half $T_j=150^\circ\text{C}$	3	mA
V_{FM}	Peak forward voltage	$I_{FM}=17.5\text{A}$, $T_j=25^\circ\text{C}$	1.1	V
$R_{th(j-c)}$	Thermal impedance (junctioncase)	Singlesided heat dissipation	1.4	$^\circ\text{C}/\text{W}$

Performance Curves

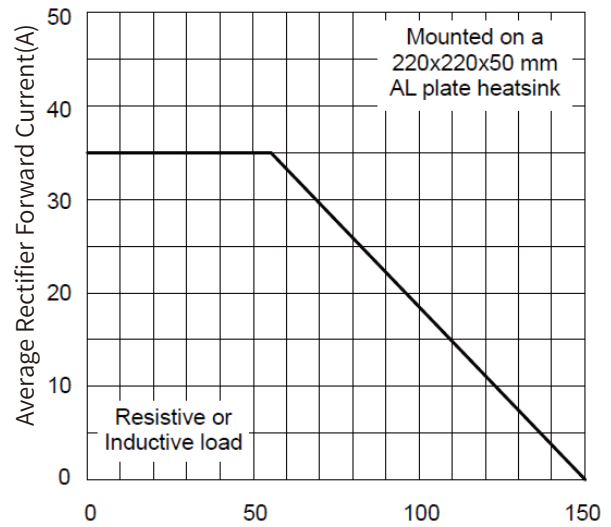
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Forward curve



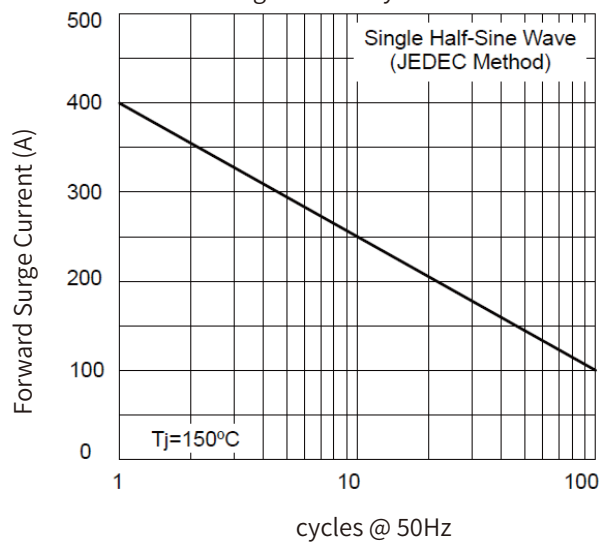
Peak Forward Voltage (V)

Case temperature and average forward current characteristic curve



Case Temperature (°C)

Forward Surge current cycle number curve



cycles @ 50Hz

Dimension

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