

Feature

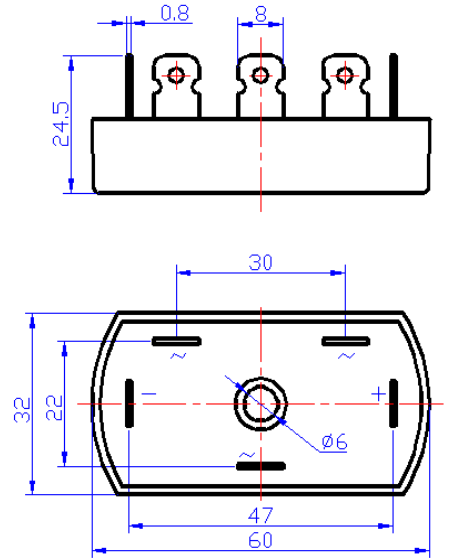
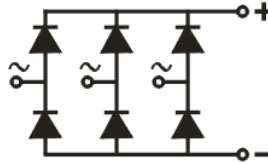
- Low forward voltage drop
- Isolation voltage 2000V ~

Application

- Power supply for DC power device
- Input rectifier for PWM convertor
- Power supply for DC device

Advantage

- Easy mounting
- Low thermal resistance, high heat-conduction rate, low temperature rise



Maximum value

Symbol	Parameter	Rating	Unit
		SQL5010	
V_{RRM}	Peak reverse repetitive voltage	1000	V
V_{RSM}	Peak reverse non-repetitive voltage	1100	V

Symbol	Parameter	Test condition	Rating	Unit
$I_{F(AV)}$	Forward average current	180° sine half-wave, 50Hz single-sided heat dissipation, $T_C=55^\circ\text{C}$	50	A
I_{FSM}	Forward surge current	$t=10\text{ms}, 50\text{Hz}, \text{sin}, T_{jm}$	450	A
I^2t	I^2t value		840	A^2S
V_{ISO}	Isolation voltage	50Hz, R.M.S, $t=1\text{min}, I_{iso}:1\text{mA}(\text{max})$	2000	V
T_j	Operating junction temperature		-40 to +150	$^\circ\text{C}$
T_{jm}	Rated junction temperature		150	$^\circ\text{C}$
T_{stg}	Storage temperature		-40 to +125	$^\circ\text{C}$
M_d	Mounting torque M5		2	N·m
W_t	Weight		65	g

Electrical characteristics

Symbol	Parameter	Test condition	Rating	Unit
I_{RRM}	Peak reverse repetitive current	$V_R=V_{RRM}$, sine half-wave, $T_j=25^\circ\text{C}$	5	μA
		$V_R=V_{RRM}$, sine half-wave, $T_j=150^\circ\text{C}$	3	mA
V_{FM}	Peak forward voltage	$I_{FM}=50\text{A}, T_j=25^\circ\text{C}$	1.3	V
$R_{th(j-c)}$	Thermal impedance (junction-case)	Single-sided heat dissipation, sine half-wave	1.6	$^\circ\text{C/W}$