

MTS50.16BY

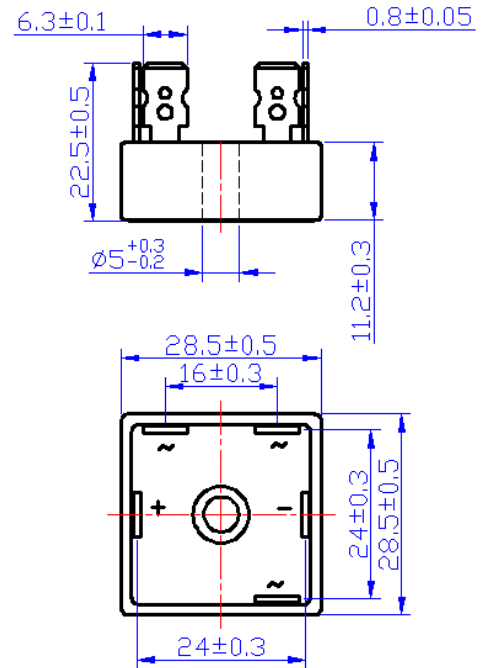
3PH POWER RECTIFIER BRIDGE 50A 1600V

Feature

- Glass-passivated chip ensures high stability
- Low forward voltage drop
- Isolation voltage 2500V~
- Small volume, light weight
- Low thermal resistance, high heat-conductivity, low temperature rise
- UL certified no. E304417

Application

- Power supply for DC power device
- Input rectifier for PWM converter
- DC motor



■ Maximum value

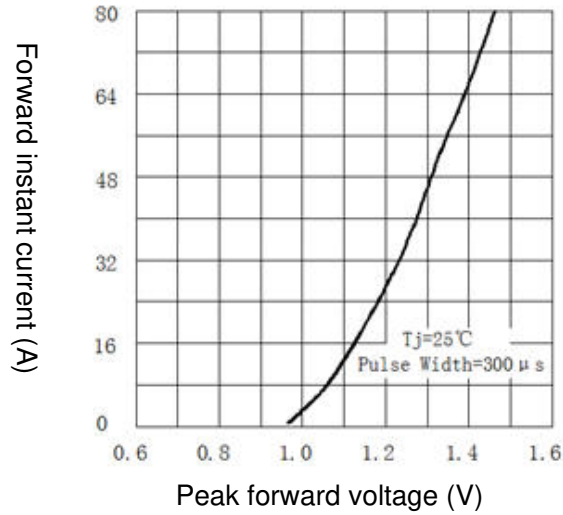
Symbol	Parameter	MTS50.16BY	Unit
V_{RRM}	Reverse peak repetitive voltage	1600	V
V_{RSM}	Reverse peak non-repetitive voltage	1700	V

Symbol	Parameter	Test condition	Rating	Unit
$I_{F(AV)}$	Forward average current	$T_C=100^\circ\text{C}$	50	A
I_{FSM}	Forward surge current	sine wave 50Hz, $t=10\text{ms}$, $T_j=25^\circ\text{C}$	450	A
I^2t	I^2t value		1012	A^2S
V_{ISO}	Isolation voltage	50Hz, R.M.S, $t=1\text{min}$, $I_{SO}:1\text{mA}(\text{max})$	2500	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		28	g

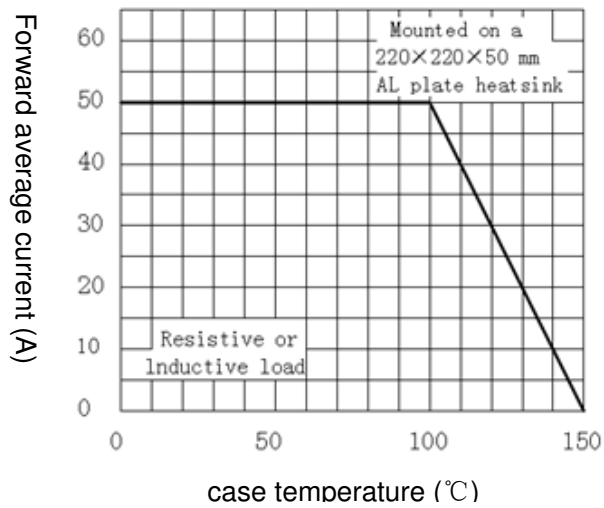
■ Electrical characteristics

Symbol	Parameter	Test condition	Max value	Unit
I_{RRM}	Peak reverse repetitive current	$V_R=V_{RRM}$, $T_j=25^\circ\text{C}$	5	μA
		$V_R=V_{RRM}$, $T_j=150^\circ\text{C}$	3	mA
V_{FM}	Peak forward voltage	$I_{FM}=25\text{A}$, $T_j=25^\circ\text{C}$	1.18	V
$R_{th(j-c)}$	Thermal impedance (junction-case)	Single-sided heat dissipation	0.6	$^\circ\text{C}/\text{W}$

Forward characteristics curve



Case temperature vs forward average current



Forward surge current vs cycles

