

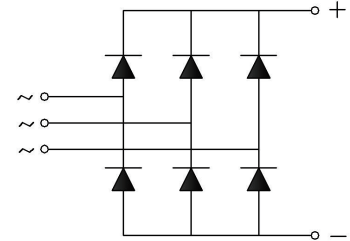
36MT80 thru 36MT160

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

Application

- Power supply for DC power device
- Input rectifier for PWM converter
- DC motor
- Rectifying device for frequency convertors with power under/and 2.2KW



Maximum value

Symbol	Parameter	Rating					Unit
		36MT80	36MT100	36MT120	36MT140	36MT160	
VRRM	Reverse peak repetitive voltage	800	1000	1200	1400	1600	V
VRSM	Reverse peak non-repetitive voltage	900	1100	1300	1500	1700	V

Symbol	Parameter	Test condition	Rating	Unit
$I_{F(AV)}$	Forward average current	TC=85°C	35	A
I_{FSM}	Forward surge current	sine wave 50Hz, $t=10ms$, $T_j=25°C$	400	A
I^2t	I^2t value		664	A ² S
Viso	Isolation voltage	50Hz, R.M.S, $t=1min$, $I_{iso}: 1mA(max)$	2500	V
T_j	Operating junction temperature		-40 to +125	°C
T_{jm}	Rated junction temperature		150	°C
T_{stg}	Storage temperature		-40 to 125	°C
Md	Mounting torque M5		2	N•m
Wt	Weight		20	g

Electrical characteristics

Symbol	Parameter	Test condition	Max value	Unit
I_{RRM}	Peak reverse repetitive current	$V_R=V_{RRM}$, $T_j=25°C$	5	μA
		$V_R=V_{RRM}$, $T_j=150°C$	3	mA
V_{FM}	Peak forward voltage	$I_{FM} = 17.5A$, $T_j=25°C$	1.18	V
$R_{th(j-c)}$	Thermal impedance (junction-case)	Single-sided heat dissipation	0.95	°C/W

36MT80 thru 36MT160

Performance Curves

FIG1. Derating Curve For Output Rectified Current

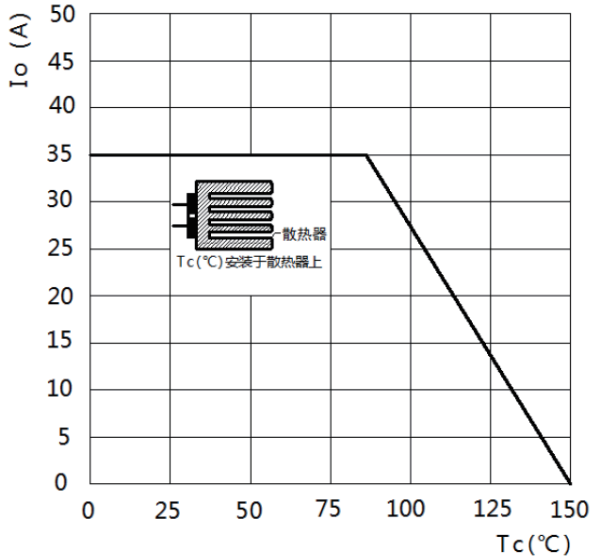


FIG2. Maximum Non-Repetitive Peak Forward Surge Current Per Bridge Element

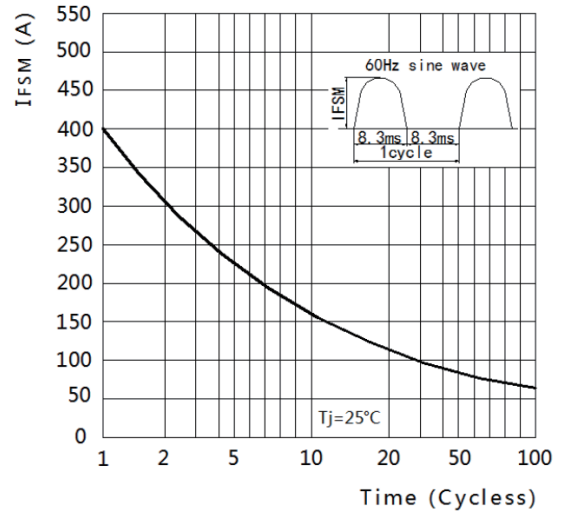
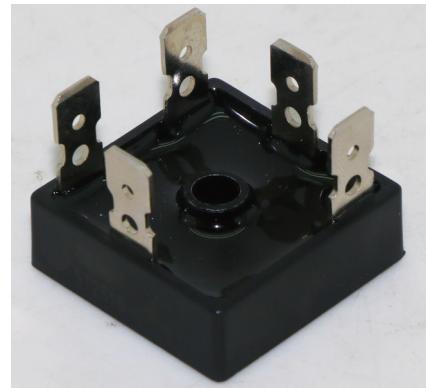
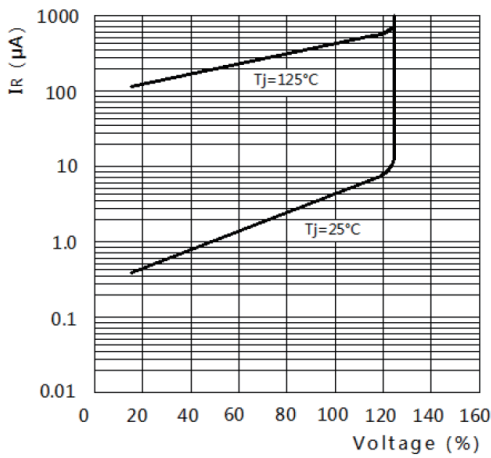
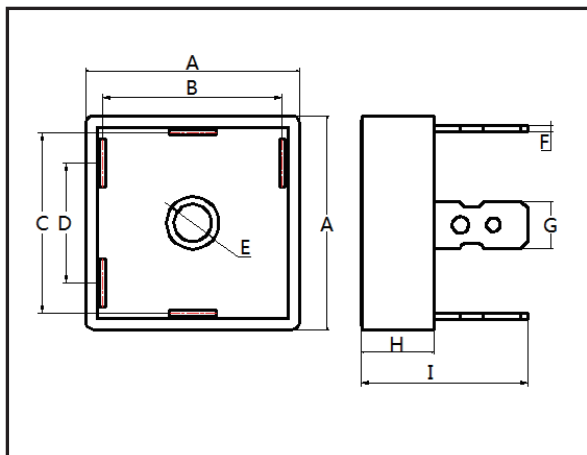


FIG3. Typical Reverse Characteristics Per Bridge Element



Outline



Dim.	Unit(mm)		Unit(inch)	
	Min.	Max.	Min.	Max.
A	28.00	29.00	1.102	1.142
B	23.70	24.70	0.933	0.972
C	23.70	24.70	0.933	0.972
D	15.50	16.50	0.610	0.650
E	4.50	5.50	0.177	0.217
F	0.60	1.00	0.024	0.039
G	6.10	6.50	0.240	0.256
H	9.50	10.50	0.374	0.413
I	21.30	23.30	0.839	0.917