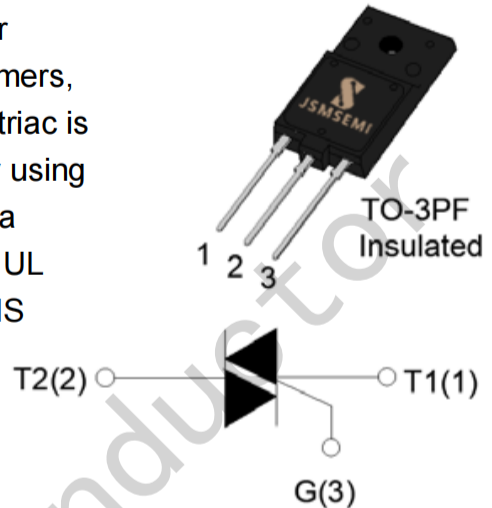


DESCRIPTION:

The JSM26F-800BW triac is suitable for general purpose AC switching. It can be used as an ON/OFF function in applications such as heating regulation, induction motor starting circuits, for phase control operation in light dimmers, motor speed controllers. JSM26F-800BW snubberless triac is especially recommended for use on inductive loads. By using an external plastic package, JSM26F-800BW provides a rated insulation voltage of 2000 VRMS, complying with UL standards (File ref: E252906). Package TO-3PF is RoHS compliant.



MAIN FEATURES

Symbol	Value	Unit
$I_{T(RMS)}$	25	A
V_{DRM}/V_{RRM}	800	V
$I_{GT\ I/\ II/\ III}$	50/50/50	mA

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Storage junction temperature range	T_{stg}	-40-150	°C
Operating junction temperature range	T_j	-40-125	°C
Repetitive peak off-state voltage ($T_j=25^\circ\text{C}$)	V_{DRM}	800	V
Repetitive peak reverse voltage ($T_j=25^\circ\text{C}$)	V_{RRM}	800	V
RMS on-state current ($T_c \leq 55^\circ\text{C}$)	$I_{T(RMS)}$	25	A
Non repetitive surge peak on-state current (full cycle , $t_p=20\text{ms}$, $T_j=25^\circ\text{C}$)	I_{TSM}	250	A
Non repetitive surge peak on-state current (full cycle , $t_p=16.6\text{ms}$, $T_j=25^\circ\text{C}$)		275	
I^2t value for fusing ($t_p=10\text{ms}$, $T_j=25^\circ\text{C}$)	I^2t	340	A^2s
Critical rate of rise of on-state current ($I_G=2 \times I_{GT}$, $f=100\text{Hz}$, $T_j=125^\circ\text{C}$)	di/dt	100	$\text{A}/\mu\text{s}$
Peak gate current ($t_p=20\mu\text{s}$, $T_j=125^\circ\text{C}$)	I_{GM}	4	A

Average gate power dissipation ($T_J=125^{\circ}\text{C}$)	$P_{G(AV)}$	0.5	W
Peak gate power	P_{GM}	10	W
Peak pulse voltage ($T_J=25^{\circ}\text{C}$; non-repetitive, off-state; FIG.7)	V_{pp}	5	kV

ELECTRICAL CHARACTERISTICS($T_J=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Test Condition	Quadrant	Value		Unit
I_{GT}	$V_D=12\text{V } R_L=33\Omega$	I - II -III	MAX.	50	mA
V_{GT}		I - II -III	MAX.	1	V
V_{GD}	$V_D=V_{DRM} T_J=125^{\circ}\text{C}$ $R_L=3.3\text{K}\Omega$	I - II -III	MIN.	0.2	V
I_L	$I_G=1.2I_{GT}$	I -III	MAX.	80	mA
		II		100	
I_H	$I_T=500\text{mA}$		MAX.	75	mA
dV/dt	$V_D=540\text{V}$ Gate Open $T_J=125^{\circ}\text{C}$		MIN.	2000	V/ μs
$(dI/dt)_c$	$(dV/dt)_c=20\text{V}/\mu\text{s } T_J=125^{\circ}\text{C}$		MIN.	25	A/ms
t_{on}	$I_G=80\text{mA } I_A=400\text{mA } I_R=40\text{mA}$ $T_J=25^{\circ}\text{C}$		TYP.	10	μs
t_{off}				70	

STATIC CHARACTERISTICS

Symbol	Parameter		Value(MAX.)	Unit
V_{TM}	$I_{TM}=35\text{A } t_p=380\mu\text{s}$	$T_J=25^{\circ}\text{C}$	1.5	V
V_{TO}	Threshold voltage	$T_J=125^{\circ}\text{C}$	0.73	V
R_D	Dynamic resistance	$T_J=125^{\circ}\text{C}$	25	$\text{m}\Omega$
I_{DRM}	$V_D=V_{DRM} V_R=V_{RRM}$	$T_J=25^{\circ}\text{C}$	5	μA
I_{RRM}		$T_J=125^{\circ}\text{C}$	2	mA

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{th(j-c)}$	junction to case (AC)	2	$^{\circ}\text{C}/\text{W}$
$R_{th(j-a)}$	junction to ambient (AC)	45	$^{\circ}\text{C}/\text{W}$

FIG.1 Maximum power dissipation versus RMS on-state current

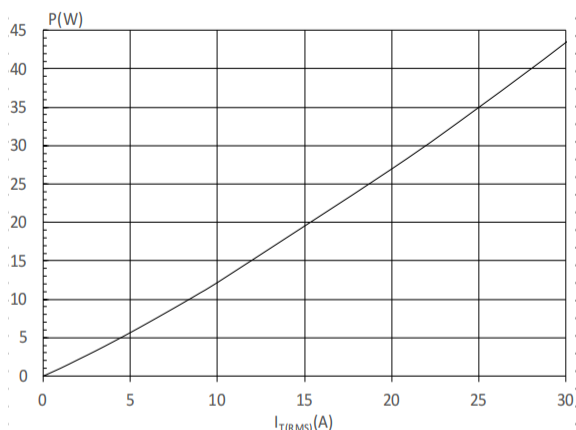


FIG.2: RMS on-state current versus case temperature

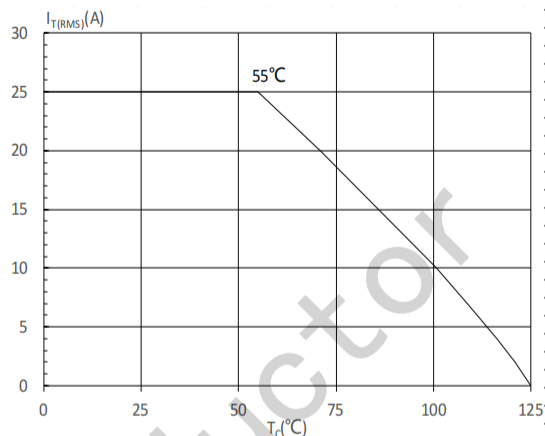


FIG.3: Surge peak on-state current versus number of cycles

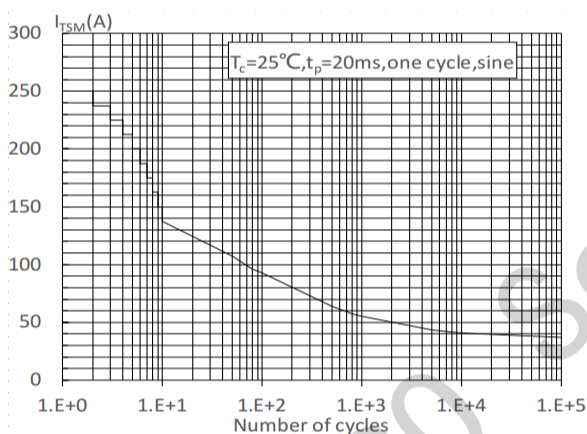


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 20ms$, and corresponding value of I^2t ($di/dt < 100A/\mu s$)

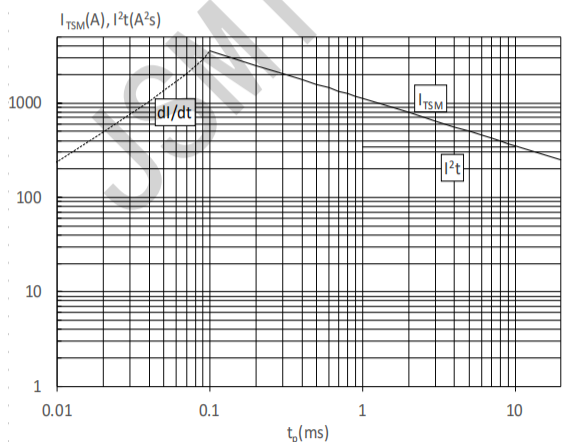


FIG.4: On-state characteristics

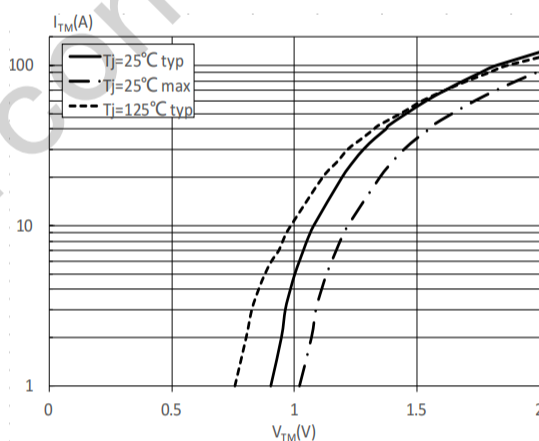


FIG.6: Relative variations of gate trigger current, holding current and latching current versus junction temperature

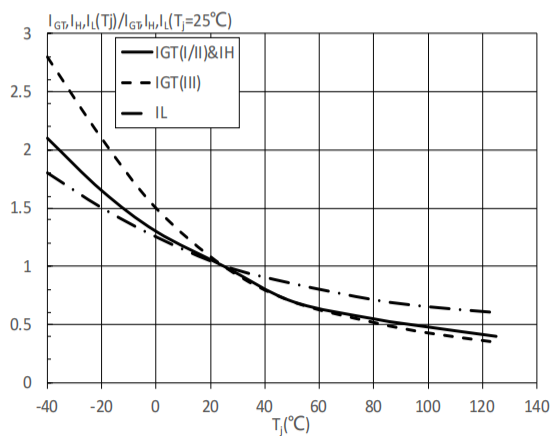
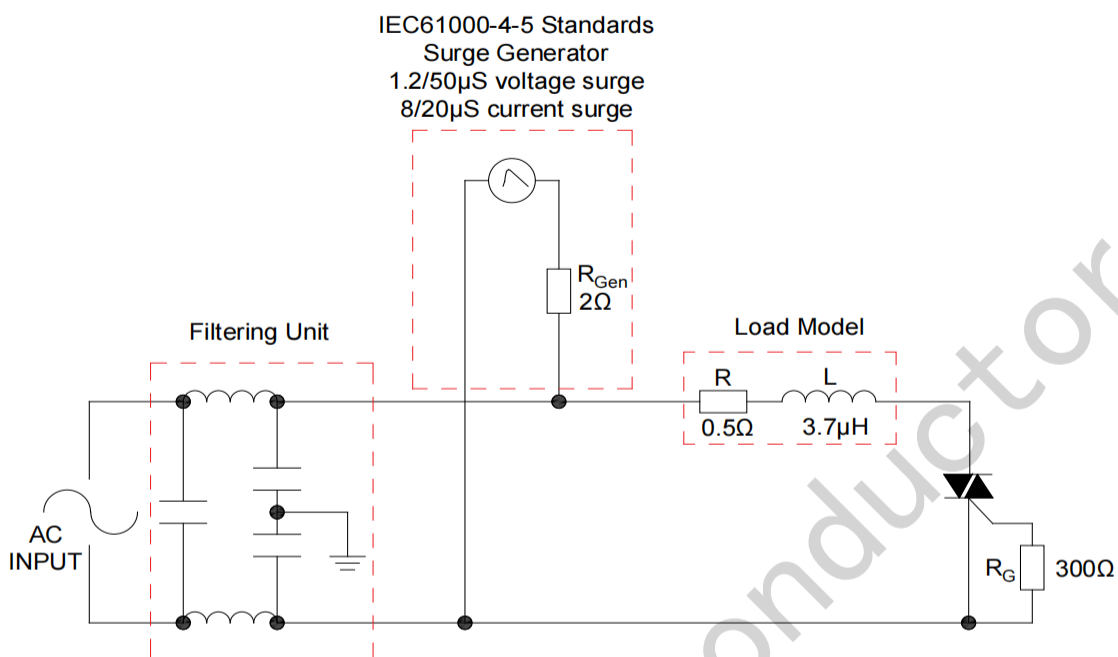


FIG.7: Test circuit for inductive and resistive loads to IEC-61000-4-5 standards



Technical drawing of a mechanical part, likely a connector or plug, showing dimensions and tolerances. The drawing includes a top view and a side view.

Top View Dimensions:

- Overall width: 15.35 ± 0.1
- Distance between top mounting holes: 9.9
- Distance between bottom mounting holes: 13.82
- Radius of the bottom mounting hole: $R1.5$
- Radius of the bottom mounting hole: $R0.10$

Side View Dimensions:

- Overall height: 26.45
- Distance from top surface to top mounting holes: 4.5
- Distance from top surface to top mounting holes: 2.50
- Distance from top surface to top mounting holes: 0.00
- Distance from top surface to top mounting holes: 2.00
- Distance from top surface to top mounting holes: 6.43
- Distance from top surface to top mounting holes: 18.11
- Distance from top surface to top mounting holes: 19.10
- Distance from top surface to top mounting holes: 19.90
- Distance from top surface to top mounting holes: 24.45
- Distance from top surface to top mounting holes: 39.3±0.3
- Distance from top surface to top mounting holes: 4.0
- Distance from top surface to top mounting holes: 2.16
- Distance from top surface to top mounting holes: 5.45
- Distance from top surface to top mounting holes: 5.45

