

MSKSEMI 美森科

SEMICONDUCTOR



ESD



TVS



TSS



MOV



GDT



PLED

BTA26-600xRG-MS

Product specification

FEATURES

- High current 25 A RMS current Triac
- Low thermal resistance
- High commutation or very high commutation capability

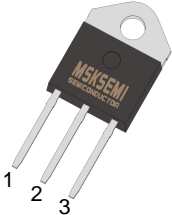
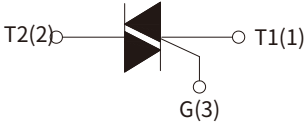


APPLICATIONS

- General purpose motor control circuits
- Phase control operations in light dimmers and motor speed controllers
- Home appliances

APPROVALS

- RoHS: Compliance with
- HF: Compliance with

Reference News

TOP-3	Schematic Symbol	BTA26-600BRG-MS	BTA26-600CRG-MS
			

THE MAIN PARAMETERS

Symbol	Parameter	Value	Unit
$I_{T(RMS)}$	RMS on-state current	25	A
V_{DRM}	Off-state repetitive peak voltage	600	V
V_{TM}	On-state voltage	1.5	V

ABSOLUTE MAXIMUM RATINGS

Parameter	Symbol	Value	Unit
Repetitive peak off-state voltage ($T_j=25^{\circ}\text{C}$)	V_{DRM}	600	V
Repetitive peak reverse voltage ($T_j=25^{\circ}\text{C}$)	V_{RRM}	600	V
RMS on-state current ($T_c=95^{\circ}\text{C}$)	$I_{\text{T(RMS)}}$	25	A
Non repetitive surge peak on-state current (full cycle, $F=50\text{Hz}$)	I_{TSM}	250	
It value for fusing ($t_p=10\text{ms}$)	I_{t}	340	A^2S
Critical rate of rise of on-state current ($I_G=2 \cdot I_{\text{GT}}$)	di/dt	50	$\text{A}/\mu\text{s}$
Peak gate current	I_{GM}	4	A
Average gate power dissipation	$P_{\text{G(AV)}}$	1	W
Storage junction temperature range	T_{STG}	$-40 \sim +150$	$^{\circ}\text{C}$
Operating junction temperature range	T_j	$-40 \sim +125$	

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

Symbol	Test Condition	Quadrant	Value		Unit
			B	C	
I_{GT}	$V_D=12\text{V}, R_L=33\Omega$	I - II-III	≤ 50	≤ 35	mA
V_{GT}			≤ 1.5		V
V_{GD}	$V_D=V_{\text{DRM}}, R_L=3.3\text{K}\Omega, T_j=125^{\circ}\text{C}$		≥ 0.2		V
I_{H}	$I_{\text{T}}=100\text{mA}$		≤ 80	≤ 60	mA
I_{L}	$I_G=1.2I_{\text{GT}}$	I - III	≤ 90	≤ 70	
		II	≤ 100	≤ 80	
dV_D/dt	$V_D=67\%V_{\text{DRM}}, T_j=125^{\circ}\text{C}$		≥ 1500	≥ 1000	$\text{V}/\mu\text{s}$
V_{TM}	$I_{\text{TM}}=35\text{A}, t_p=380\mu\text{s}$		≤ 1.5		V
I_{DRM}	$V_D=V_{\text{DRM}}, V_R=V_{\text{RRM}}$	$T_j=25^{\circ}\text{C}$	≤ 5		μA
I_{RRM}		$T_j=125^{\circ}\text{C}$	≤ 3		mA

THERMAL RESISTANCES

Symbol	Parameter	Value	Unit
$R_{\text{th(j-c)}}$	Junction to case(AC)	0.67	$^{\circ}\text{C}/\text{W}$

PARAMETER CHARACTERISTIC CURVE

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

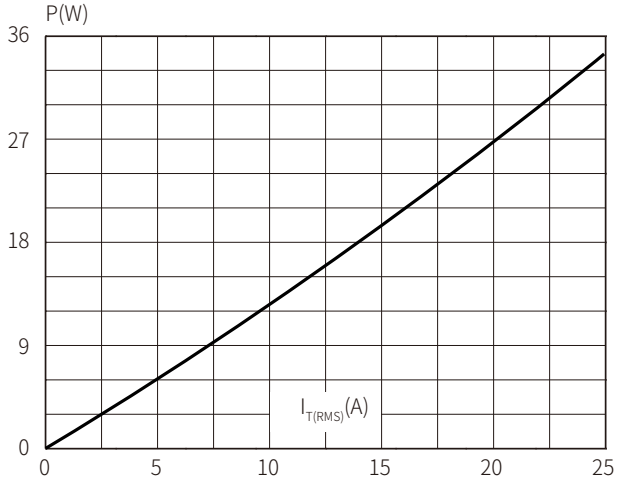


FIG.2: RMS on-state current versus case temperature

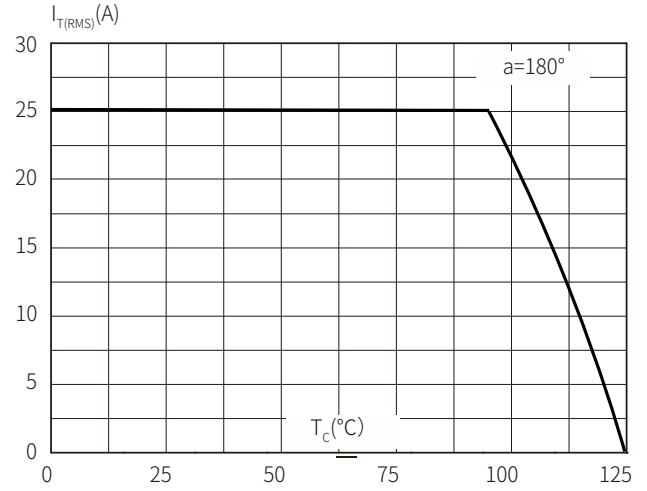


FIG.3: Surge peak on-state current versus number of cycles

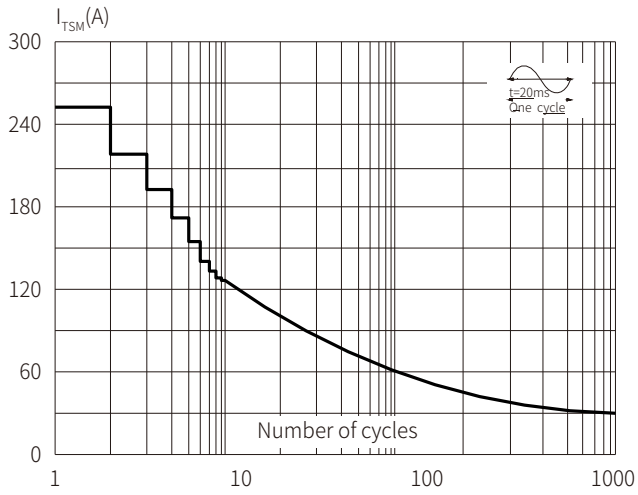


FIG.4 On-state characteristics (maximum values)

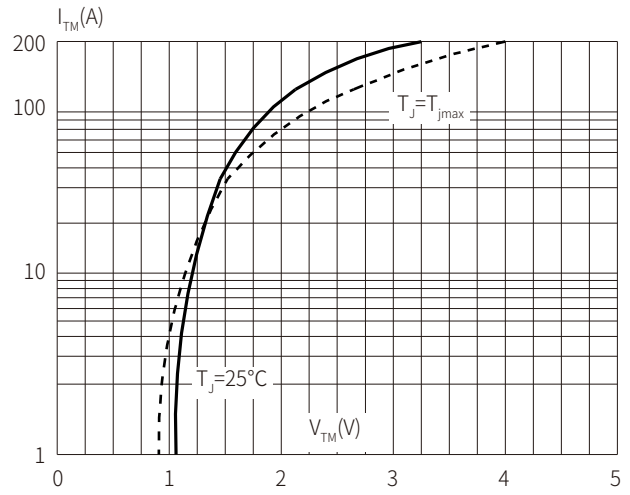


FIG.5: Non-repetitive surge peak on-state current for a sinusoidal pulse with width $t_p < 20\text{ms}$ and corresponding value of I^2t ($dI/dt < 50\text{A}/\mu\text{s}$)

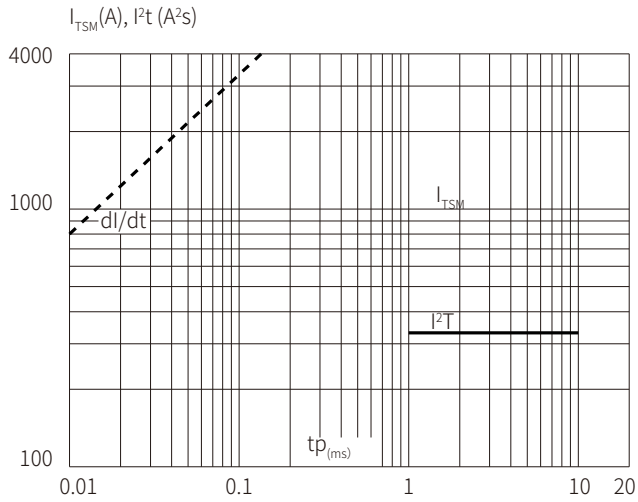


FIG.6 Relative variations of gate trigger current versus junction temperature

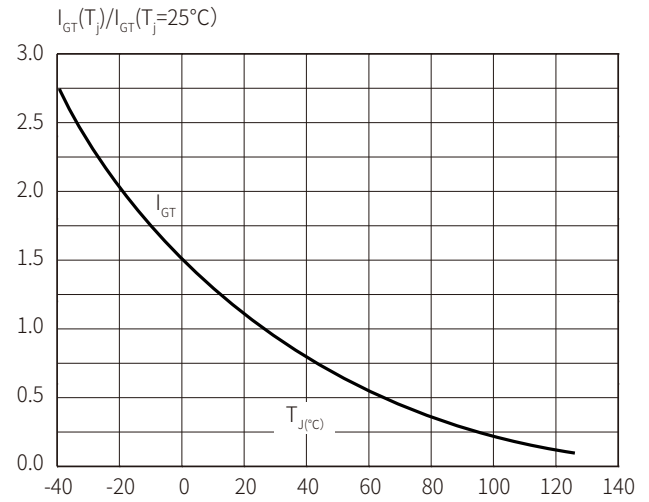


FIG.7 Relative variations of holding current versus junction temperature

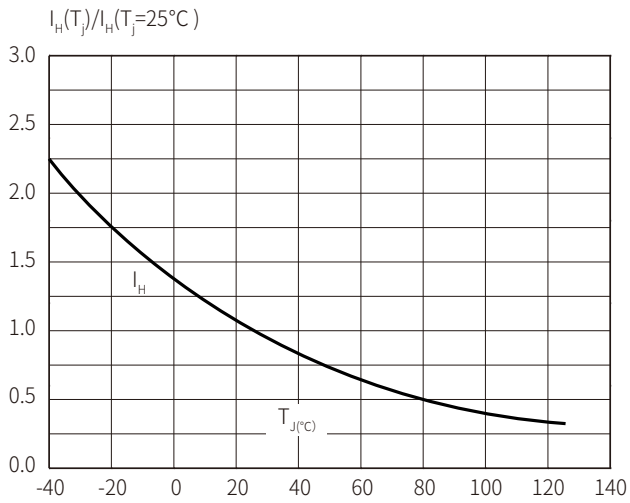
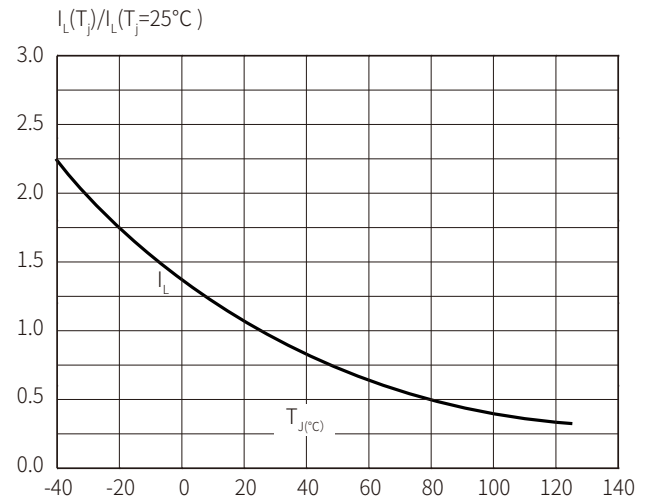
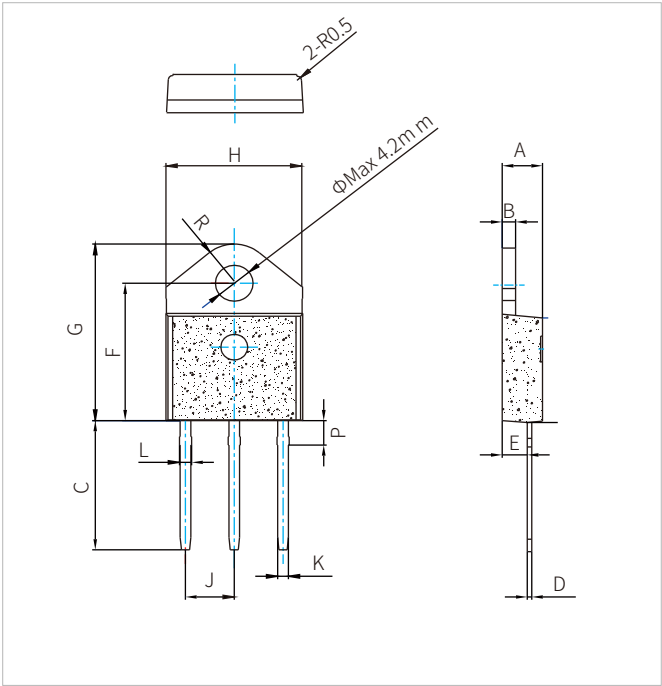


FIG.8 Relative variations of latching current versus junction temperature



TOP-3 PACKAGE MECHANICAL DATA



Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.30		4.70	0.169		0.185
B	1.40		1.60	0.056		0.063
C	14.35		15.60	0.565		0.614
D	0.50		0.70	0.020		0.028
E	2.70		2.90	0.106		0.114
F	15.		16.	0.618		0.654
G	7020.		6021.	0.803		0.831
H	4015.		1015.	0.591		0.614
J	00		60	0.213		0.222
K	5.40		5.65	0.043		0.055
L	1.10		1.40	0.047		0.059
P	1.20		1.50	0.110		0.150
R	2.80	4.35	3.80		0.171	

Order information

P/N	PKG	QTY
BTA26-600BRG-MS	TOP-3	480PCS
BTA26-600CRG-MS	TOP-3	480PCS

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