

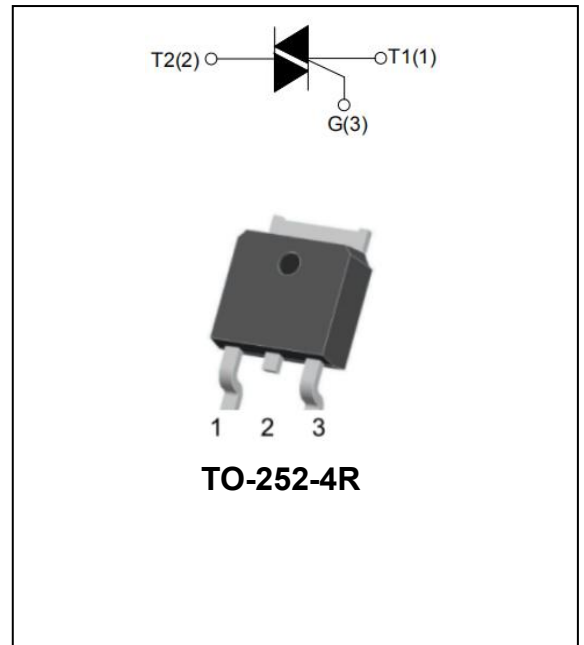
**YZPST-BCR2AS-14A 2A Triacs**

**DESCRIPTION:**

With low holding and latching current, BCR2AS-14A Series triacs are especially recommended for use on middle and small resistance type power load.

**MAIN FEATURES:**

symbol	value	unit
$I_{T(RMS)}$	2	A
$V_{DRM}/V_{RRM}$	800	V
$V_{TM}$	$\leq 1.5$	V



**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	$I_{T(RMS)}$	2	A
Non repetitive surge peak on-state current (full cycle, $F=50\text{Hz}$ )	$I_{TSM}$	20	A
$I^2t$ value for fusing ( $t_p=10\text{ms}$ )	$I^2t$	2	$\text{A}^2\text{s}$
Critical rate of rise of on-state current ( $I_G=2 \times I_{GT}$ )	I - II - III	50	$\text{A}/\mu\text{s}$
	IV	10	
Peak gate current	$I_{GM}$	2	A
Average gate power dissipation	$P_{G(AV)}$	0.5	W
Peak gate power	$P_{GM}$	5	W

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

Parameter	Test Condition	Quadrant		Value	Unit
$I_{GT}$	$V_D=12\text{V}, R_L=33\Omega$	I - II - III	MAX	10	mA
$V_{GT}$		I - II - III		1.3	V
$V_{GD}$	$V_D=V_{DRM}$	I - II - III	MIN	0.2	V
$I_H$	$I_T=100\text{mA}$		MAX	10	mA
$I_L$	$I_G=1.2I_{GT}$	I - III	MAX	10	mA
		II		15	
dV/dt	$V_D=0.66 \times V_{DRM}$ $T_j=125^{\circ}\text{C}$ Gate open		MIN	20	V/ $\mu\text{s}$

**STATIC CHARACTERISTICS**

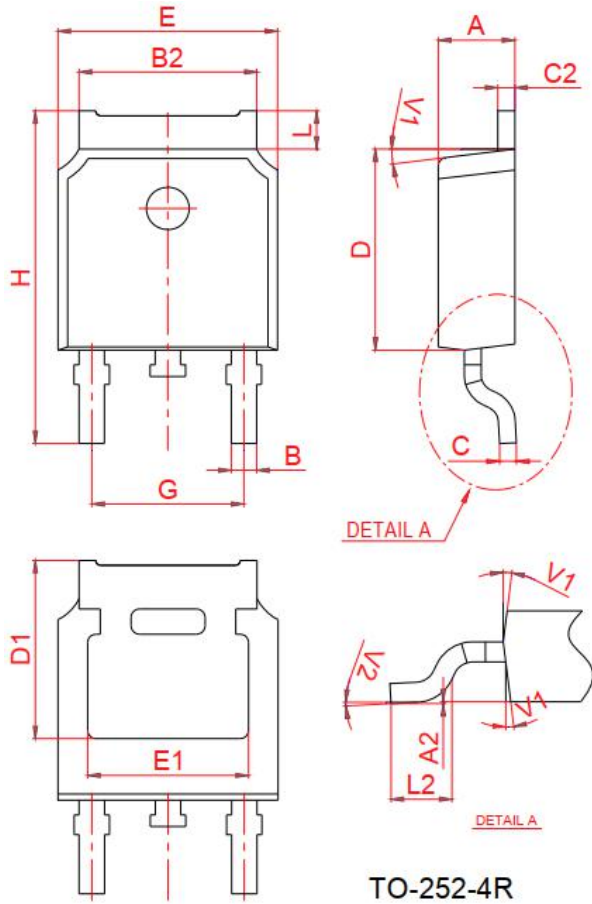
Symbol	Test Condition			Value	Unit
$V_{TM}$	$I_{TM}=3.5\text{A}$ $t_p=380\mu\text{s}$	$T_j=25^{\circ}\text{C}$	MAX	1.5	V
$I_{DRM}$ $I_{RRM}$	$V_{DRM}=V_{RRM}$	$T_j=25^{\circ}\text{C}$	MAX	5	$\mu\text{A}$
		$T_j=125^{\circ}\text{C}$		0.5	mA

**THERMAL RESISTANCES**

Symbol	Test Condition		Value	Unit
$R_{th(j-c)}$	junction to case(AC)	TO-252-4R	3.8	$^{\circ}\text{C}/\text{W}$

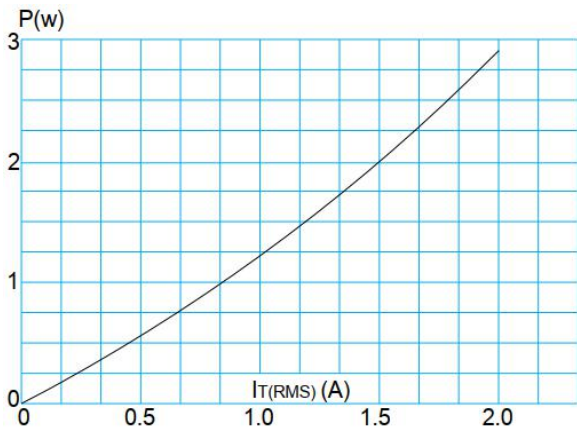
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**PACKAGE MECHANICAL DATA**

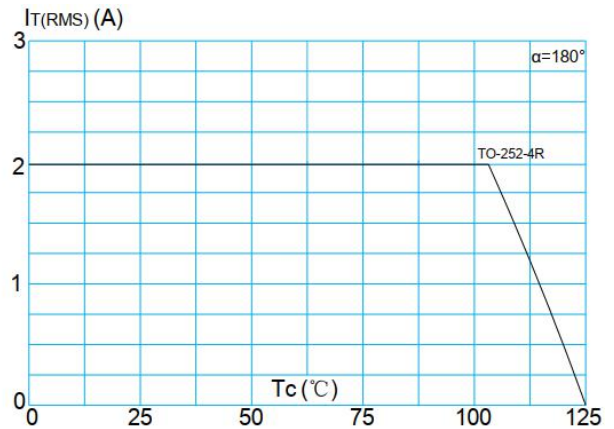


Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	2.2		2.4	0.087		0.094
A2	0		0.1	0		0.004
B	0.66		0.86	0.026		0.034
B2	5.1		5.46	0.201		0.215
C	0.46		0.58	0.018		0.023
C2	0.44		0.58	0.017		0.023
D	5.9		6.3	0.232		0.248
D1	5.30REF			0.211REF		
E	6.4		6.8	0.252		0.268
E1	4.63			0.182		
G	4.372		4.772	0.172		0.188
H	9.8		10.4	0.386		0.409
L	1.09		1.21	0.043		0.048
L2	1.35		1.65	0.053		0.065
V1		7°			7°	
V2	0°		6°	0°		6°

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

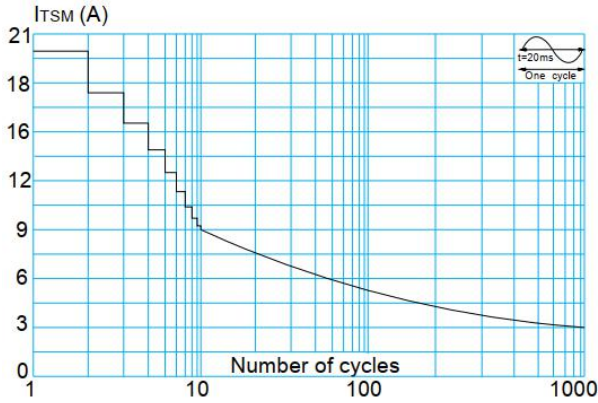


**FIG.2:** RMS on-state current versus case temperature

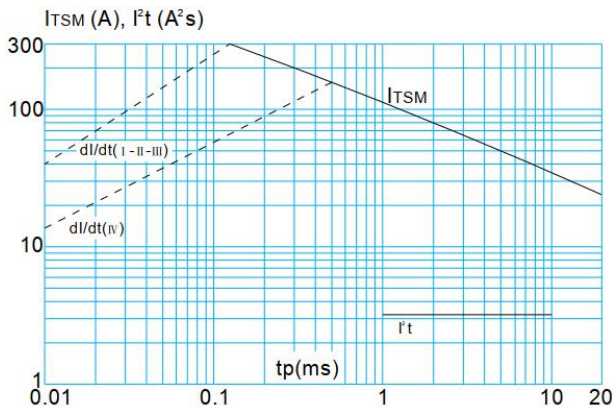


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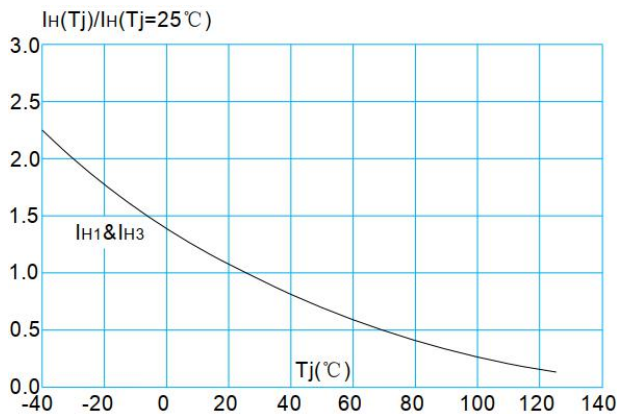
**FIG.3:** Surge peak on-state current versus number of cycles



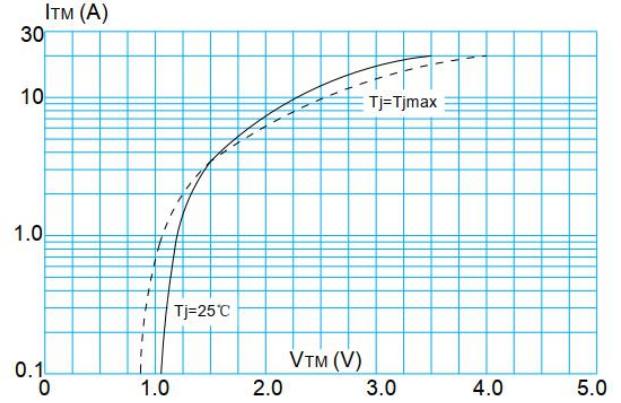
**FIG.5:** Non-repetitive surge peak on-state current for a sinusoidal pulse with width  $t_p < 20\text{ms}$ , and corresponding value of  $I^2t$  ( I - II -III:  $dI/dt < 50\text{A}/\mu\text{s}$ ; IV:  $dI/dt < 10\text{A}/\mu\text{s}$ )



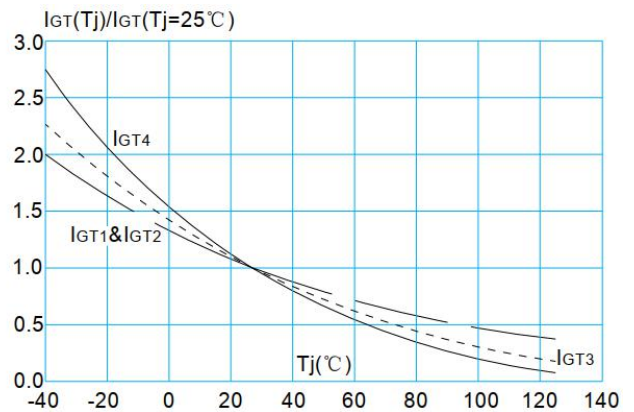
**FIG.7:** Relative variations of holding current versus junction temperature



**FIG.4:** On-state characteristics (maximum values)



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



**FIG.8:** Relative variations of latching current versus junction temperature

