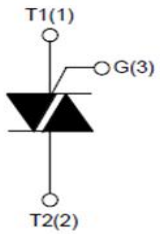
isc Triacs BCR25FR-12LB

Features

- With TO-220F package
- IT (RMS)： 25 A
- VDRM：600 V
- Tj：150 °C
- Minimum Lot-to-Lot variations for robust device performance and reliable operation

TO-220F
Insulated



Applications

- Provide high ability to withstand the shock loading of large current，They are especially recommended for use on inductive load and high environment temperature condition.

ABSOLUTE MAXIMUM RATINGS

SYMBOL	PARAMETER	MIN	UNIT
V_{DRM}	Repetitive peak off-state voltage (Tj=25℃)	600	V
V_{RRM}	Repetitive peak reverse voltage (Tj=25℃)	600	V
V_{DSM}	Non repetitive surge peak Off-state voltage	720	V
V_{RSM}	Non repetitive peak reverse voltage	720	V
$I_{T(RMS)}$	RMS on-state current， Tc = 62℃	25	A
I_{TSM}	Non repetitive surge peak on-state current (full cycle, F=50Hz)	250	A
I^2t	I2t value for fusing (tp=10ms)	313	A
I_{GM}	Peak gate current	4	A
$P_{G(AV)}$	Average gate power dissipation	1	W
T_j	Operating junction temperature	-40~150	℃
T_{stg}	Storage temperature	-40~150	℃
$R_{th(j-c)}$	Thermal resistance, junction to case	2.8	℃/W

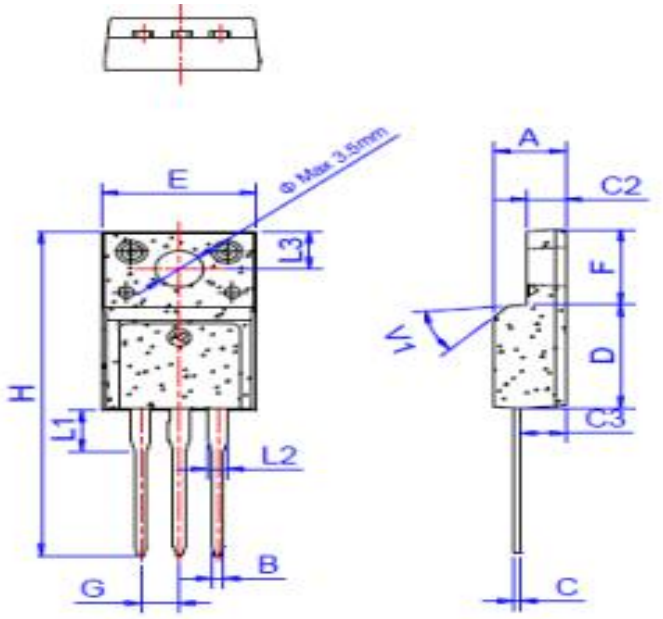
ELECTRICAL CHARACTERISTICS (T_C=25℃ unless otherwise specified)

SYMBOL	PARAMETER		CONDITIONS	MAX	UNIT
I_{GT}	Gate trigger current	I	V_D=6V; R_L= 6Ω; RG = 330Ω	50	mA
		II		50	
		III		50	
V_{GT}	Gate trigger voltage all quadrant	I	V_D=6V; R_L= 6Ω; RG = 330Ω	2.0	V
		II			
		III			
V_{TM}	On-state voltage		I_{TM}=40A, instantaneous measurement	1.5	V
SYMBOL	**PARAMETER**		**CONDITIONS**	**MIN**	**UNIT**
V_{GD}	Gate non-trigger voltage		Tj = 125°C, V_D = 1/2 V_{DRM}	0.2	V
			Tj = 150°C, V_D = 1/2 V_{DRM}	0.1	V

STATIC CHARACTERISTICS

SYMBOL	PARAMETER	CONDITIONS	MAX	UNIT
I_{RRM}	Repetitive peak reverse current	Tj=125℃, V_R=V_{RRM}	3	mA
		Tj=150℃, V_R=V_{RRM}	5	mA
I_{DRM}	Repetitive peak off-state current	Tj=125℃, V_D=V_{DRM}	3	mA
		Tj=150℃, V_D=V_{DRM}	5	mA

Package Dimensions：



TO-220F Ins

Ref.	Dimensions					
	Millimeters			Inches		
	Min.	Typ.	Max.	Min.	Typ.	Max.
A	4.50		4.90	0.177		0.193
B	0.74	0.80	0.83	0.029	0.031	0.033
C	0.47		0.65	0.019		0.026
C2	2.45		2.75	0.096		0.108
C3	2.60		3.00	0.102		0.118
D	8.80		9.30	0.346		0.366
E	9.80		10.4	0.386		0.410
F	6.40		6.80	0.252		0.268
G		2.54			0.1	
H	28.0		29.8	1.102		1.173
L1		3.63			0.143	
L2	1.14		1.70	0.045		0.067
L3		3.30			0.130	
V1		45°			45°	

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