AUTOMOTIVE POLYIMIDE PASSIVATED SUPER FAST

RECTIFIER Reverse Voltage - 600 Volts
Forward Current - 6.0Amperes

Features

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Fast switching for high efficiency
- Low forward voltage drop
- Single rectifier construction
- High surge capability
- High temperature soldering guaranteed:260° C/10 seconds,
- Component in accordance to RoHS 2015/863/EU
- AEC-Q101 qualified and PPAP capable

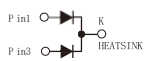
IATF16949认证

AEC-Q101 Qualified

Mechanical Data

- Case: JEDEC TO-252(DPAK) molded plastic body
- Terminals: Solderable per MIL-STD-202,method 208
- Polarity: As marked
- Mounting Position: Any

TO-252
DPAK



Typical Applications

- For use in boost stage in SMPS
- High frequency inverters for solar inverters
- DC/DC converters
- High frequency output rectification of battery chargers
- Free wheeling diodes in motor drivers

Maximum Ratings And Electrical Characteristics

(Ratings at 25° C ambient temperature unless otherwise specified ,Single phase ,half wave ,resistive or inductive load.
For capacitive load,derate by 20%.)

Parameters	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	200	V
Maximum average forward rectified current	$I_{F(AV)}$	6.0	A
Peak forward surge current 8.3mS single half sine-wave superimposed on rated load (JEDEC method,Per leg)	I_{FSM}	60	A
Rating for fusing(t=8.3ms)	I^2t	14.94	A^2S
Operating junction temperature range	T_J	-55 to 150	℃
Storge temperature range	Tstg	-55 to 150	℃

RATINGS AND CHARACTERISTICS OF KMUR620M1-V

Electrical Characteristcs(Per Leg, T_a=25℃ Unless Otherwise Noted)

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instaneous forward voltage	I_F=3.0A	T_j=25℃	V_F 1)	0.87	0.93	V
		T_j=125℃		0.68	–	
Reverse current	V_R=200V	T_j=25℃	I_R 2)	–	5.0	μA
		T_j=125℃		–	50	
Typical junction capacitance	4V,1MHz		C_J	43		pF

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle
2.Pulse test: pulse width≤40ms

Dynamic Recovery Characteristcs (T_j=25℃)

Parameters	Test Conditions	Symbol	Min.	Typ.	Max.	Units
Reverse recovery time	I_F=0.5A, I_R=1A, I_{RR}=0.25A	trr	–	17	25	ns

Thermal Characteristics

Parameter	Symbol	TO-252	Unit
Typical thermal resistance 3)	$R_{\theta JC}$	2.5	℃/W

3. Thermal resistance from junction to case

Available Pack Information

Product code	Pack	Carton Size L×W×H(mm)	Inner Box Size L×W×H(mm)	Tube Length (mm)	Inner Box Number	Tube Number Per A Inner Box	Part Number Per A Tube	Quantity(carton) (K)
KMUR620M1-V TO-252	Tube	565×225×170	548×151×37	520	5	60	75	22.5
Product code	Pack	Carton Size L×W×H(mm)	Inner Box Size L×W×H(mm)	Reel Diameter (mm)	Inner Box Number	Reel Number Per A Inner Box	Part Number Per A Reel	Quantity(carton) (K)
KMUR620M1-V TO-252	Reel	364×364×235	346×346×23	Φ330	8	1	2500	20

RATINGS AND CHARACTERISTICS OF KMUR620M1-V

Fig.1-Forward Current Derating Curve

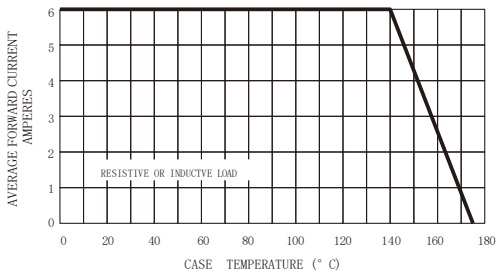


Fig.2-Maximum Non-repetitive Peak Forward Surge Current

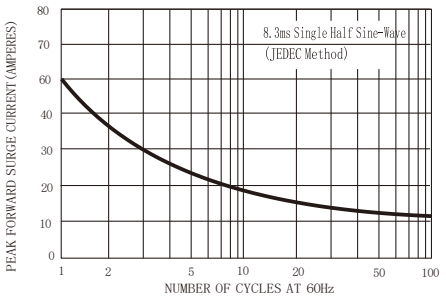


Fig.3-Typical Instantaneous Forward Characteristics

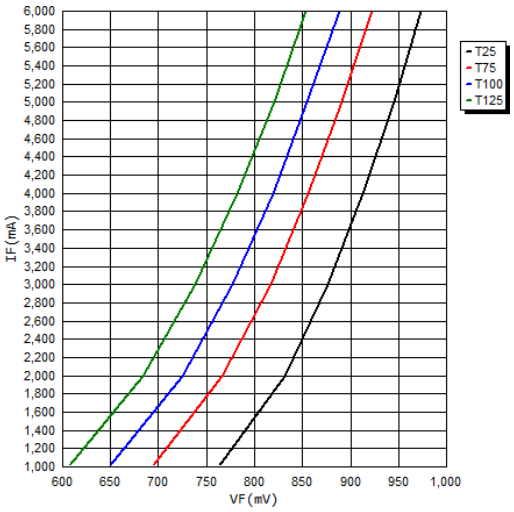
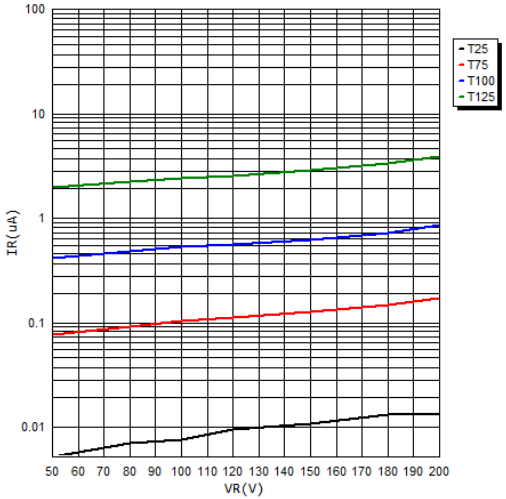


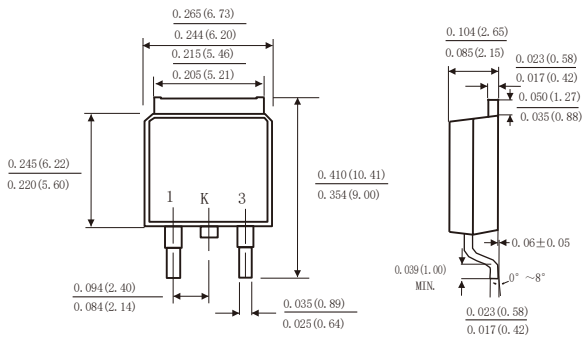
Fig.4-Typical Reverse Characteristics



PACKAGE OUTLINE DIMENSIONS

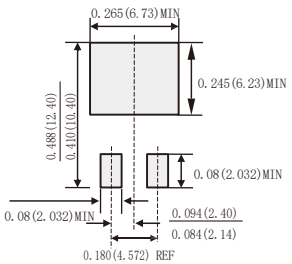
Dimensions in inches and (millimeters)

TO-252



Suggested Pad Layout

（TO-252）



(Designers can refer to the recommended values according to the manufacturing process requirements to determine the appropriate pad size)