

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

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

Primary Characteristics	
$I_F(AV)$	2×3.0A
V_{RRM}	200V
I_{FSM}	60A
V_F at $I_F=3.0A(25^\circ C)$	0.87V
I_R	0.05 μA
$T_J(Max)$	150 $^\circ C$
Package	TO-252

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 ² S
Operating junction temperature range	T_J	-55 to 150	$^\circ C$
Storage temperature range	T_{Stg}	-55 to 150	$^\circ C$

Electrical Characteristics(Per Leg, $T_a=25^{\circ}\text{C}$ Unless Otherwise Noted)

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instantaneous forward voltage	$I_F=3.0\text{A}$	$T_J=25^{\circ}\text{C}$	V_F 1)	0.87	0.93	V
		$T_J=125^{\circ}\text{C}$		0.68	-	
Reverse current	$V_R=200\text{V}$	$T_J=25^{\circ}\text{C}$	I_R 2)	-	5.0	μA
		$T_J=125^{\circ}\text{C}$		-	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 $\leq 40\text{ms}$

Dynamic Recovery Characteristics ($T_J=25^{\circ}\text{C}$)

Parameters	Test Conditions	Symbol	Min.	Typ.	Max.	Units
Reverse recovery time	$I_F=0.5\text{A}, I_R=1\text{A}, I_{RR}=0.25\text{A}$	t_{rr}	-	17	25	ns

Thermal Characteristics

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

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)
MUR620M1- 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)
MUR620M1- TO-252	Reel	364×364×235	346×346×23	$\phi 330$	8	1	2500	20

Fig.1-Forward Current Derating Curve

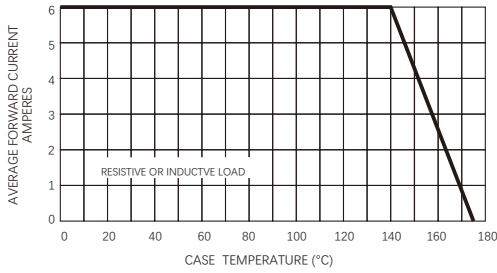


Fig.2-Maximum Non-repetitive Peak Forward Surge Current

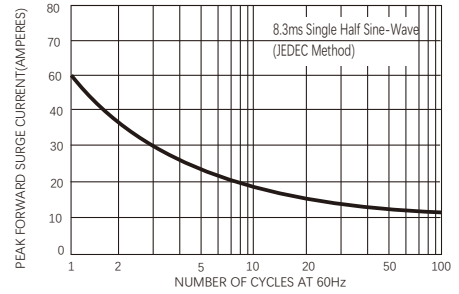


Fig.3-Typical Instantaneous Forward Characteristics

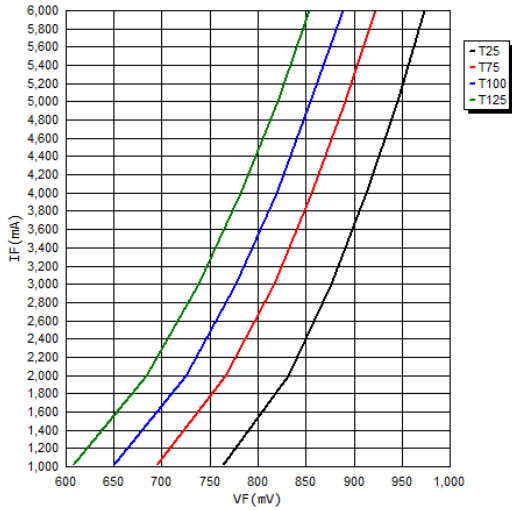
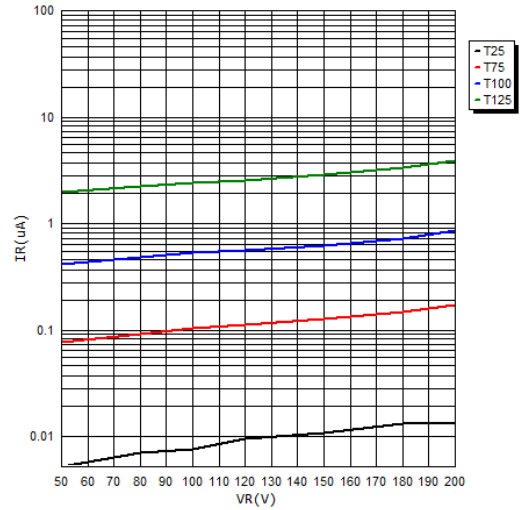
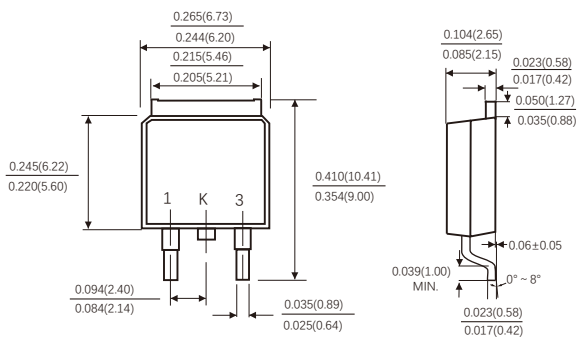


Fig.4-Typical Reverse Characteristics



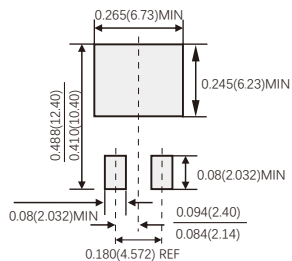
Dimensions in inches and (millimeters)

TO-252



Suggested Pad Layout

(TO-252)



(设计者可参考推荐值根据焊接工艺要求自行确定适合的焊盘尺寸)
(Designers can refer to the recommended values according to the manufacturing process requirements to determine the appropriate pad size)

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