

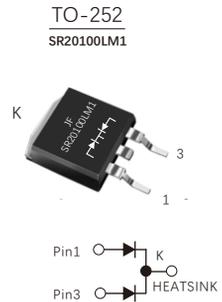
FEATURES

- Power pack
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,low forward voltage drop
- High forward surge capability
- High frequency operatio
- Per J-STD-020,LF MAX peak of 260°C for TO-252 package
- Component in accordance to RoHS 2015/863/EU



MECHANICAL DATA

- Case: JEDEC TO-252
- Molding compound meets UL94V-0 flammability rating
- Terminals: Lead solderable per J-STD-002 and JESD22-B102
- Polarity: As marked



TYPICAL APPLICATIONS

For use in low voltage ,high frequency inverters ,DC/DC converters,free wheeling ,and polarity protection applications

MAXIMUM RATINGS

(Ratings at 25°C ambient temperature unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V _{RRM}	100	V
Maximum average forward rectified current (see fig.1)	I _{F(AV)}	20.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (Total device,JEDEC method at rated TL)	I _{FSM}	200	A
Peak repetitive reverse current per diode at tp=2μs 1KHz	I _{RRM}	0.5	A
Operating junction and Storage temperature range	T _J ,T _{stg}	-55 to+150	°C

ELECTRICAL CHARACTERISTICS (T_A=25°C Unless otherwise noted)

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instantaneous forward voltage	Per leg I _F =10.0A	T _J =25°C	V _F 1)	0.70	0.75	V
		T _J =100°C		0.68	-	
		T _J =125°C		0.67	-	
	Per leg I _F =5.0A	T _J =25°C		0.55	-	
		T _J =100°C		0.52	-	
		T _J =125°C		0.50	-	
Reverse current	V _R =100V	T _J =25°C	I _R 2)	-	50	μA
		T _J =100°C		-	5	mA
		T _J =125°C		-	20	

Notes: 1.Pulse test: 300 μs pulse width,1% duty cycle

2.Pulse test: pulse width ≤40ms

THERMAL CHARACTERISTICS

Parameter	Symbol	TO-252	Unit
Typical thermal resistance 3)	R _{θJC}	2.5	°C/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)
SR20100LM1- 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)
SR20100LM1- TO-252	Reel	364×364×235	346×346×23	φ330	8	1	2500	20

FIG.1-FORWARD CURRENT DERATING CURVE

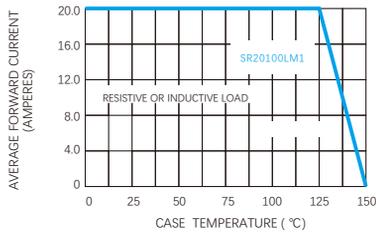


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

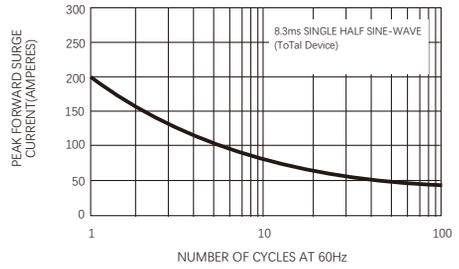


FIG.3-TYPICAL REVERSE CHARACTERISTICS

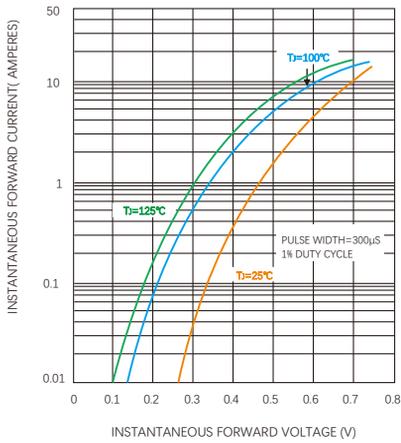
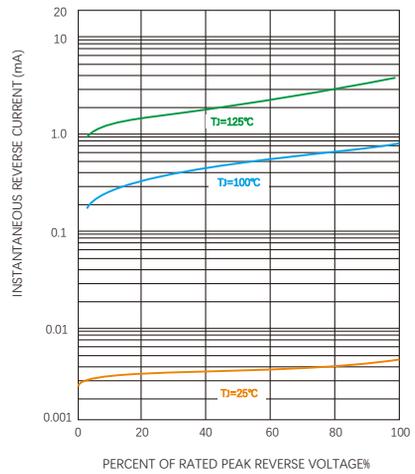


FIG.4-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS



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