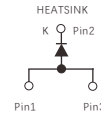
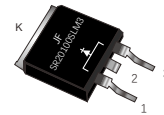


## FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,low forward voltage drop
- High surge capability
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU



## TO-252 (DPAK)



## MECHANICAL DATA

- Case: JEDEC TO-252 molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: As marked
- Mounting Position: Any

## 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 <sub>RRM</sub>	100	V
Maximum average forward rectified current (see fig.1)	I <sub>F(AV)</sub>	20	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I <sub>FSM</sub>	250	A
Operating junction and Storage temperature range	T <sub>J</sub> , T <sub>stg</sub>	-55 to +150	°C

### PRIMARY CHARACTERISTICS

I <sub>F(AV)</sub>	20A
V <sub>RRM</sub>	100V
I <sub>FSM</sub>	250A
V <sub>F</sub> at I <sub>F</sub> =20A,125°C	0.59V Typ
I <sub>R</sub>	15μA Typ
T <sub>J(MAX)</sub>	150°C
Package	TO-252
Diode variations	Single Chip

# RATINGS AND CHARACTERISTIC OF SR20100SLM3

## ELECTRICAL CHARACTERISTICS (T<sub>A</sub>=25°C Unless otherwise noted)

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instantaneous forward voltage	T <sub>J</sub> =25°C	I <sub>F</sub> =3.0A	V <sub>F</sub> 1)	0.43	-	V
		I <sub>F</sub> =5.0A		0.46	-	
		I <sub>F</sub> =10.0A		0.53	-	
		I <sub>F</sub> =20.0A		0.65	0.73	
	T <sub>J</sub> =125°C	I <sub>F</sub> =3.0A		0.31	-	
		I <sub>F</sub> =5.0A		0.36	-	
		I <sub>F</sub> =10.0A		0.47	-	
		I <sub>F</sub> =20.0A		0.60	-	
Reverse current	V <sub>R</sub> =100V	T <sub>J</sub> =25°C	I <sub>R</sub> 2)	-	50	μA
		T <sub>J</sub> =125°C		-	15	mA
Typical junction capacitance	4V,1MHz		C <sub>J</sub>	1500		pF

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

2.Pulse test: pulse width ≤40ms

## THERMAL CHARACTERISTICS

Parameter	Symbol	SR20100SLM3	Unit
Typical thermal resistance <sup>3)</sup>	R <sub>θJC</sub>	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)
SR20100SLM3-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)
SR20100SLM3-TO-252	Reel	364×364×250	346×346×23	φ328	10	1	2500	25

# RATINGS AND CHARACTERISTIC OF SR20100SLM3

FIG.1-FORWARD CURRENT DERATING CURVE

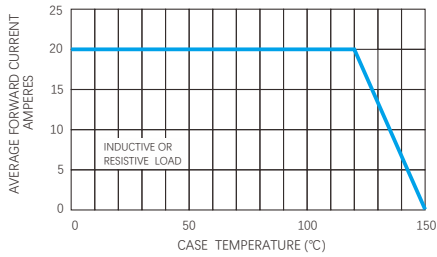


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

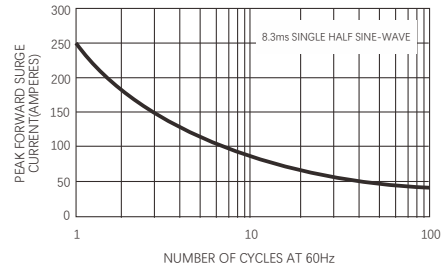


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

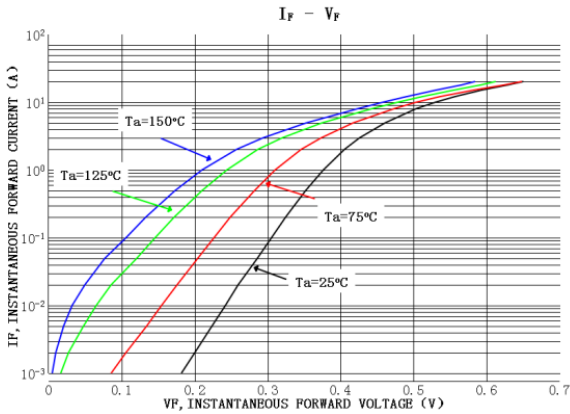


FIG.4-TYPICAL REVERSE CHARACTERISTICS

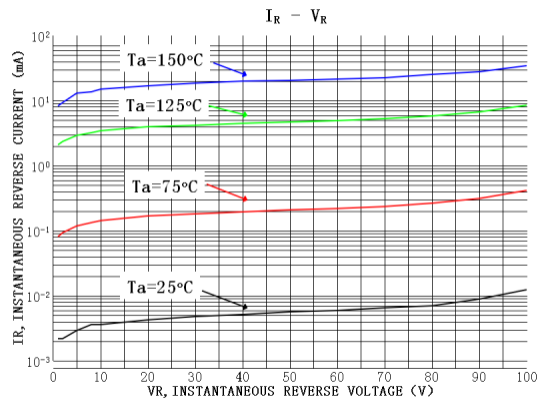
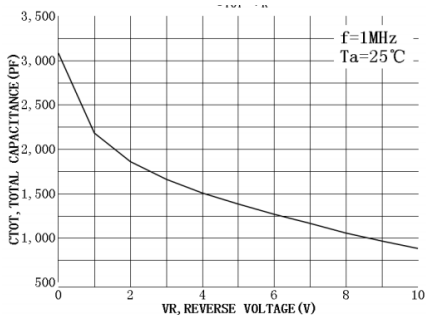
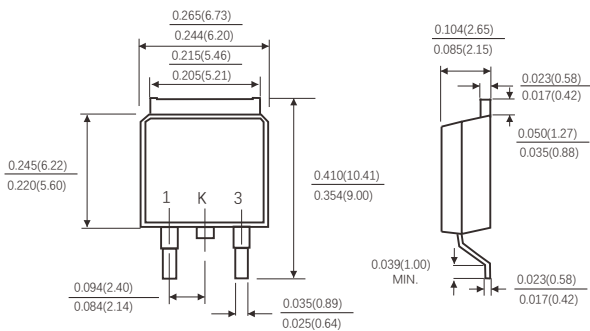


FIG.5-TYPICAL JUNCTION CAPACITANCE



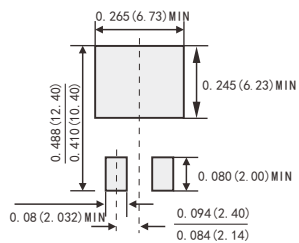
Dimensions in inches and (millimeters)

## TO-252



## Suggested Pad Layout

(TO-252)



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