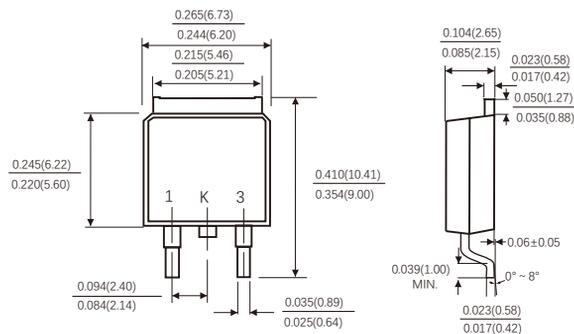


## TO-252

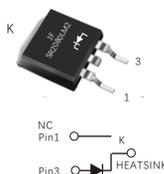
## FEATURES

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



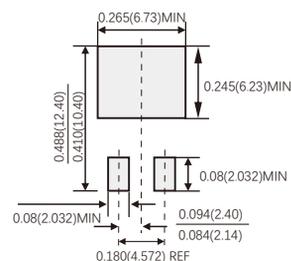
## MECHANICAL DATA

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



## Suggested Pad Layout

(TO-252)



## TYPICAL APPLICATIONS

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

## MAXIMUM RATINGS

Dimensions in inches and (millimeters)

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

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	$V_{RRM}$	80	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 (JEDEC method at rated TL)	$I_{FSM}$	200	A
Operating junction temperature range	$T_j$	-55 to+150	°C
Storage temperature range	$T_{STG}$	-55 to+150	°C

## RATINGS AND CHARACTERISTIC OF SR2080LM2

### 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> =20A	V <sub>F</sub> 1)	0.65	0.72	V
		I <sub>F</sub> =10A		0.54	-	
		I <sub>F</sub> =5A		0.46	-	
	T <sub>j</sub> =125°C	I <sub>F</sub> =20A		0.60	-	
		I <sub>F</sub> =10A		0.46	-	
		I <sub>F</sub> =5A		0.37	-	
Reverse current	V <sub>R</sub> =80V	T <sub>j</sub> =25°C	I <sub>R</sub> 2)	-	50	μA
		T <sub>j</sub> =125°C		-	20	mA
Typical junction capacitance	4V,1MHz		C <sub>J</sub>	750		pF

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 <sub>θJC</sub>	1.6	°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)
SR2080LM2-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)
SR5100LM2-TO-252	Reel	364×364×235	346×346×23	φ330	8	1	2500	20

# RATINGS AND CHARACTERISTIC OF SR2080LM2

FIG.1-FORWARD CURRENT DERATING CURVE

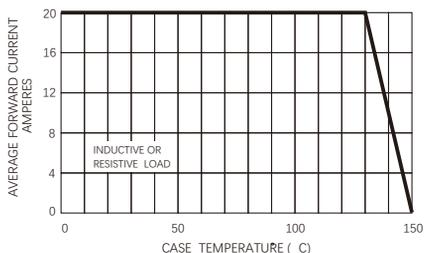


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

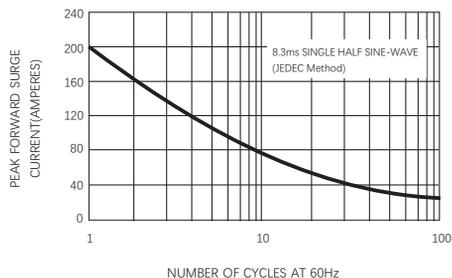


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

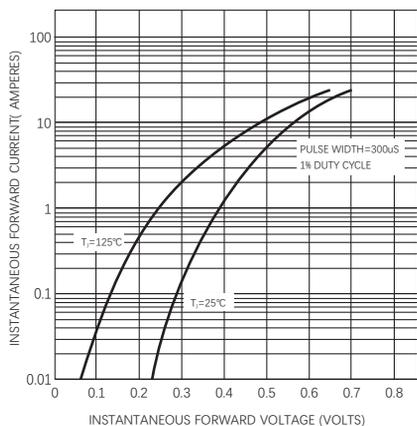


FIG.4-TYPICAL REVERSE CHARACTERISTICS

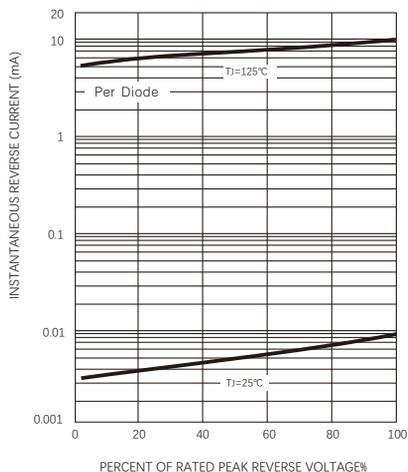
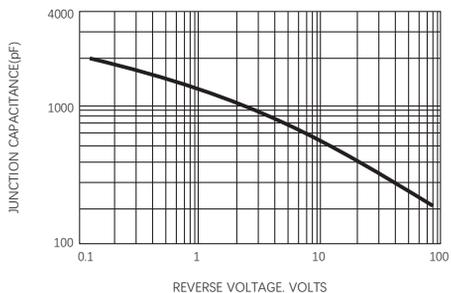


FIG.5-TYPICAL JUNCTION CAPACITANCE



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