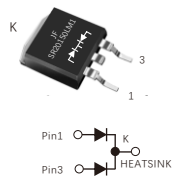


FEATURES

- 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 operation
- Per J-STD-020,LF MAX peak of 260°C (for TO-252 package)
- Component in accordance to RoHS 2015/863/EU



TO-252(DPAK)
SR20150LM1



MECHANICAL DATA

- Case: JEDEC TO-252(DPAK)
- 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

PRIMARY CHARACTERISTICS

$I_F(AV)$	2×10A
V_{RRM}	150V
I_{FSM}	200A
V_f at $I_f=10A, 125^\circ C$	0.67V
I_R Typ,25°C	2.0μA
$T_J(MAX)$	150°C
Package	TO-252
Diode variations	Common cathode

MAXIMUM RATINGS

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

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	150	V
Maximum forward average 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	I_{FSM}	200	A
Operating junction and Storage temperature range	T_J, T_{stg}	-55 to+150	°C

RATINGS AND CHARACTERISTIC OF SR20150LM1

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

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instantaneous forward voltage	T _J =25°C	I _F =5.0A	V _F ¹⁾	0.75	-	V
		I _F =10A		0.80	0.88	
	T _J =125°C	I _F =5.0A		0.60	-	
		I _F =10A		0.67	0.74	
Reverse current	T _J =25°C	V _R =150V	I _R ²⁾	-	20	μA
	T _J =125°C			-	10	mA
Typical junction capacitance	4V,1MHz		C _J	144		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 _{θjc}	1.8	°C/W

3.Thermal resistance from junction to case

AVAILABLE PACK INFORMATION

Product code	Pack	Box Size L×W×H(mm)	Quantity(pcs/box)	Carton SizeL×W×H(mm)	Quantity(box/carton)
SR20150LM1-TO-252	Tube	558×148×38	4000	565×225×170	5
SR20150LM1-TO-252	Tape & reel(13")	346×346×23	2500	364×364×250	10

RATINGS AND CHARACTERISTIC OF SR20150LM1

FIG.1-FORWARD CURRENT DERATING CURVE

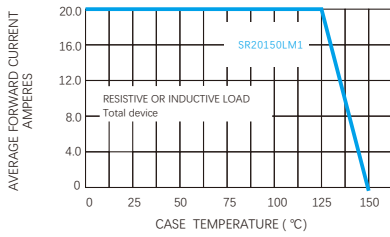


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

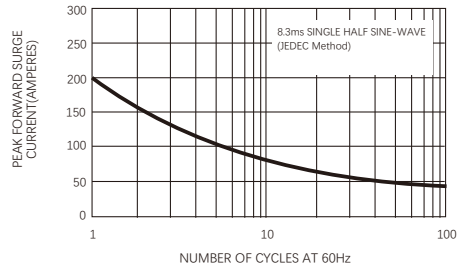


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS(Per Leg)

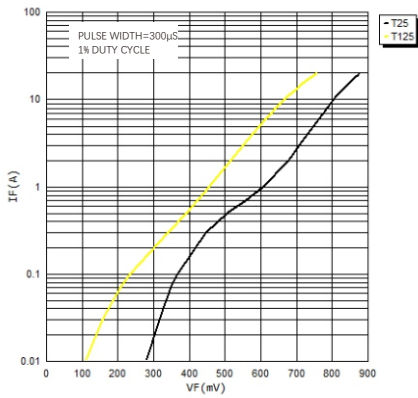


FIG.4-TYPICAL REVERSE CHARACTERISTICS(Per Leg)

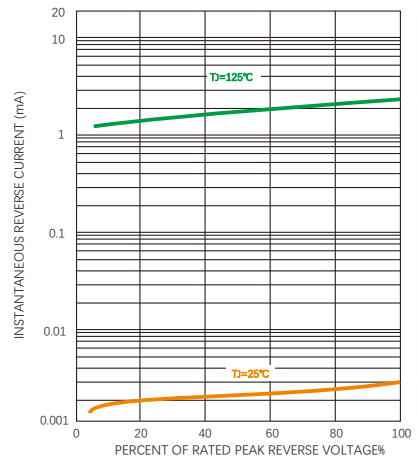
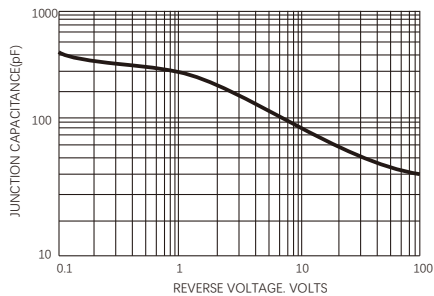
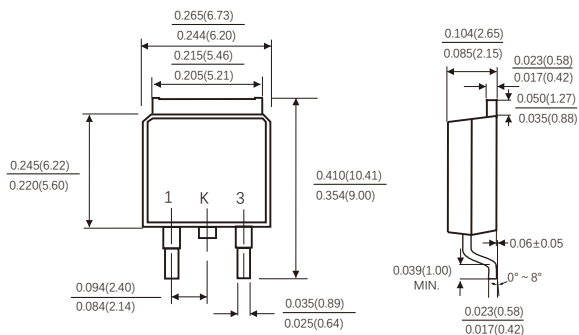


FIG.5-TYPICAL JUNCTION CAPACITANCE(Per Leg)

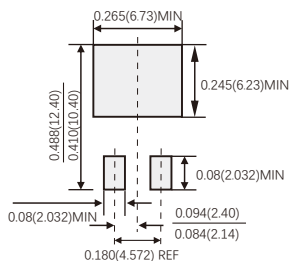


TO-252



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)

Dimensions in inches and (millimeters)

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