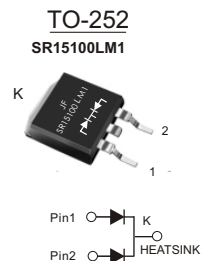


FEATURES

- 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
- Meets MSL Level 1, per J-STD-020, LF MAX peak of 245°C (for TO-252 package)
- Component in accordance to RoHS 2011/65/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
- Mounting Torque: 10 in-lbs maximum

TYPICAL APPLICATIONS

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

PRIMARY CHARACTERISTICS	
IF(AV)	2×7,5A
VRRM	100V
IFSM	100A
VF at IF=5.0A(25°C)	0.75V
IR	50 μ A
TJ(MAX)	150°C
Package	TO-252
Diode variations	Common cathode

MAXIMUM RATINGS

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

Parameter	Symbol	SR15100LM1	Unit
Maximum repetitive peak reverse voltage	VRRM	100	V
Maximum average forward rectified current (see fig.1)	Per leg	7,5	A
	Total device	15.0	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	IFSM	100	A
Peak repetitive reverse current per diode at tp=2 μ s 1KHz	IRRM	0.05	mA
Operating junction and Storage temperature range	TJ ,Tstg	-55 to+150	°C

RATINGS AND CHARACTERISTIC OF SR15100LM1

ELECTRICAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

Parameter	Test Conditions		Symbol	TYP.	MAX.	Unit
Instantaneous forward voltage	Per Leg $I_F=5.0\text{A}$	$T_A=25^{\circ}\text{C}$	V_F ¹⁾	0.68	0.75	v
Reverse current	$V_R=100\text{V}$	$T_A=25^{\circ}\text{C}$	I_R ²⁾	-	50	μA
		$T_A=100^{\circ}\text{C}$		-	10	mA

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

2.Pulse test: pulse width $\leq 40\text{ms}$

THERMAL CHARACTERISTICS ($T_A=25^{\circ}\text{C}$ Unless otherwise noted)

Parameter	Symbol	SR15100LM1	Unit
Typical thermal resistance ³⁾	$R_{\theta\text{JC}}$	60	$^{\circ}\text{C}/\text{W}$

3.Thermal resistance from junction to case

AVAILABLE PACK INFORMATION

Product code	Package	Box Size L×W×H(mm)	Quantity (pcs/box)	Carton Size L×W×H(mm)	Quantity (box/carton)
SR10100SLM1-TO-252	P/T	340×337×45	5000	370×370×420	8

RATINGS AND CHARACTERISTIC OF SR15100LM1

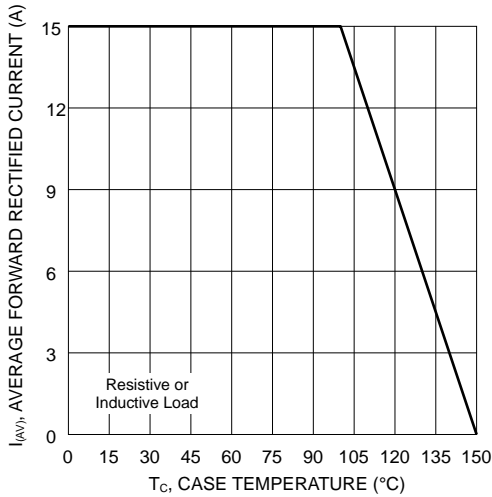


Fig. 1 Forward Current Derating Curve

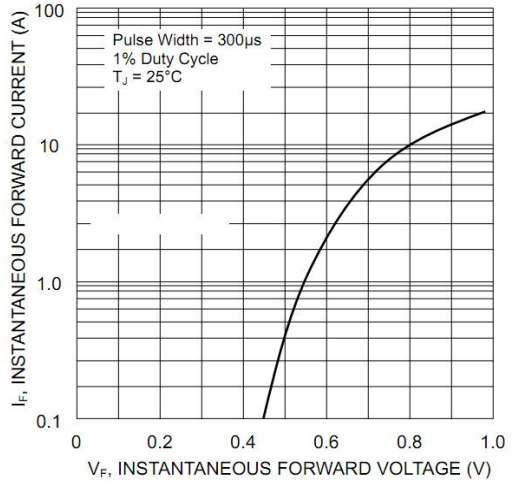


Fig. 2 Typical Forward Characteristics

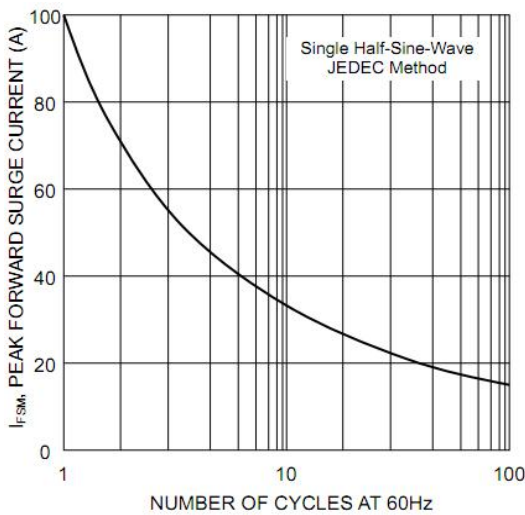


Fig. 3 Forward Surge Current Derating Curve

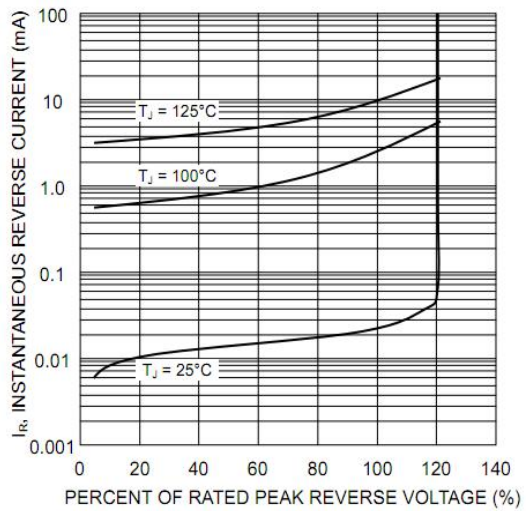
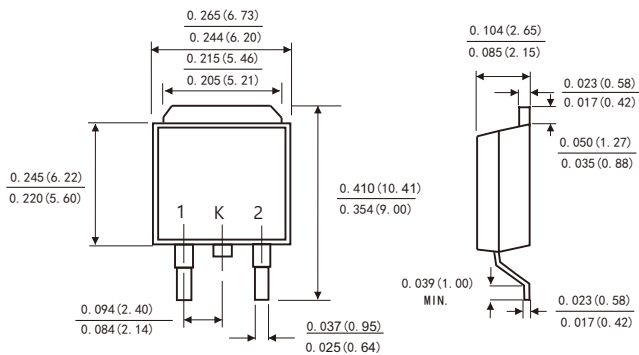


Fig. 4 Typical Reverse Characteristics

PACKAGE OUTLINE DIMENSIONS

Dimensions in inches and (millimeters)

TO-252



Suggested Pad Layout

(TO-252)

