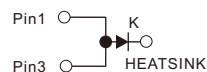
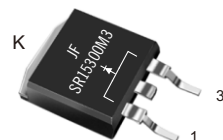


FEATURES

- 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
- Meets MSL Level 1, per J-STD-020, LF MAX peak of 260°C (for TO-252 package)
- Component in accordance to RoHS 2015/863/EU



TO-252
SR15300M3



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

PRIMARY CHARACTERISTICS

$I_F(AV)$	15A
V_{RRM}	300V
I_{FSM}	150A
V_F at $I_F=15A, 125^\circ C$	0.77V
$I_F Typ, 25^\circ C$	0.5 μA
$T_J(MAX)$	150°C
Package	TO-252
Diode variations	Single chip

MAXIMUM RATINGS

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

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	300	V
Maximum forward average rectified current (see fig.1)	$I_F(AV)$	15.0	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load	I_{FSM}	150	A
Operating junction and Storage temperature range	T_J, T_{stg}	-55 to +150	°C

RATINGS AND CHARACTERISTIC OF SR15300M3

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

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instantaneous forward voltage	I _F =15.0A	T _A =25°C	V _F ¹⁾	0.90	0.95	V
		T _A =100°C		0.80	—	
		T _A =125°C		0.77	—	
	I _F =5.0A	T _A =25°C		0.76	—	
		T _A =100°C		0.66	—	
		T _A =125°C		0.62	—	
Reverse current	V _R =300V	T _A =25°C	I _R ²⁾	—	5.0	μA
		T _A =100°C		—	0.5	mA
		T _A =125°C		—	1.5	
Typical junction capacitance	4V, 1MHz		C _J	175		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}	2.5	°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 Size L×W×H (mm)	Quantity (box/carton)
SR15300M3-TO-252	P/T	558×148×38	4000	565×225×170	5

RATINGS AND CHARACTERISTIC OF SR15300M3

FIG.1-FORWARD CURRENT DERATING CURVE

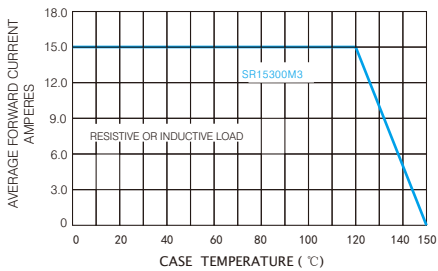


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

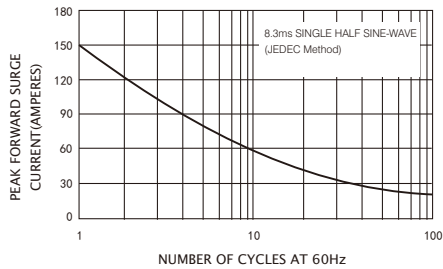


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

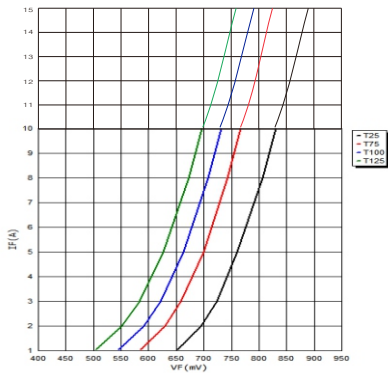


FIG.4-TYPICAL REVERSE CHARACTERISTICS

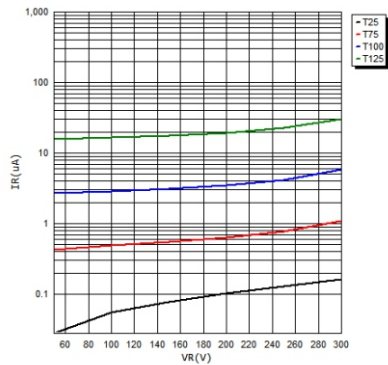
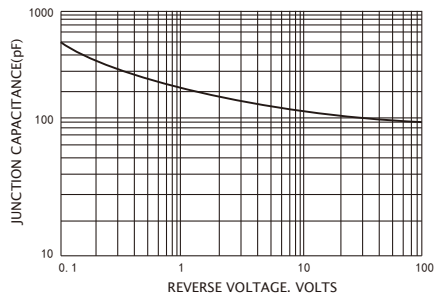
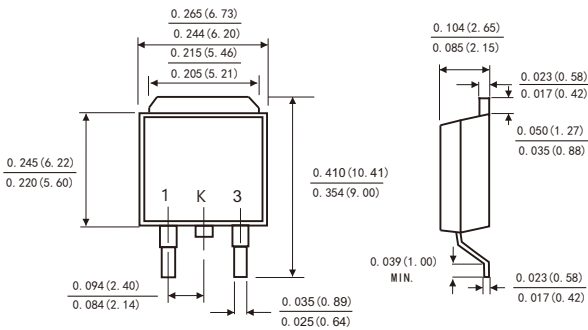


FIG.5-TYPICAL JUNCTION CAPACITANCE

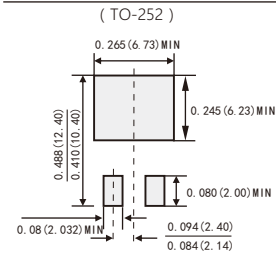


PACKAGE OUTLINE DIMENSIONS

TO-252



Suggested Pad Layout



Dimensions in inches and (millimeters)

Friendship Reminder

- JiNan JingHeng (hereinafter referred to as JH) reserves the right to make changes to this document and its products and specifications at anytime without notice.
济南晶恒（以下简称JH）保留，未经通知变更本文件和与本文件相关的产品及规格的权利。
- Customers should obtain and confirm the latest product information and specifications before final design, purchase or use.
使用方应在使用、采购本产品之前获取并确认产品信息和规格书的最新版本。
- JH makes no warranty, representation or guarantee regarding the suitability of its products for any particular purpose, nor does JH assume any liability for application assistance or customer product design.
JH对其产品用于某特定用途的适用性，既不做任何保证、说明或担保、也不承担任何应用协助或使用方设计的法定责任。
- JH does not warrant or accept any liability with products which are purchased or used for any unintended or unauthorized application.
JH不保证或承担任何责任，其产品被采购使用于任何非预期或授权的应用。
- No license is granted by implication or otherwise under any intellectual property rights of JH.
此规格书属于JH的知识产权, 没有经过我司授权不得抄袭。
- JH's products are not authorized for use as critical components in life support devices or systems without express written approval of JH.
没有JH的书面授权，JH的产品不能在生命支撑设备或系统里作为关键零件使用。