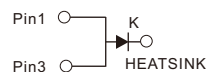
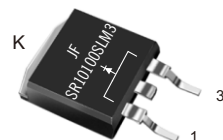


FEATURES

- 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 2011/65/EU



TO-252
SR10100SLM3



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

$I_F(AV)$	10A
V_{RRM}	100V
I_{FSM}	150A
V_F at $I_F=10A, 125^\circ C$	0.53V
I_R	20 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}	100	V
Maximum forward average rectified current (see fig.1)	$I_F(AV)$	10.0	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 SR10100SLM3

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

Parameter	Test Conditions		Symbol	Typ.	Max.	Unit
Instantaneous forward voltage	I _F =10.0A	T _A =25°C	V _F ¹⁾	0.56	0.62	V
		T _A =100°C		0.54	—	
		T _A =125°C		0.53	—	
	I _F =5.0A	T _A =25°C		0.47	—	
		T _A =100°C		0.44	—	
		T _A =125°C		0.42	—	
Reverse current	V _R =100V	T _A =25°C	I _R ²⁾	—	50	μA
		T _A =100°C		—	5	mA
		T _A =125°C		—	15	
Typical junction capacitance	4V, 1MHz		C _J	810		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 SizeL×W×H(mm)	Quantity(box/carton)
SR10100SLM3-TO-252	P/T	558×148×38	4000	565×225×170	5

RATINGS AND CHARACTERISTIC OF SR10100SLM3

FIG.1-FORWARD CURRENT DERATING CURVE

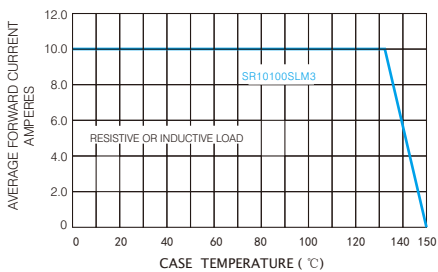


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

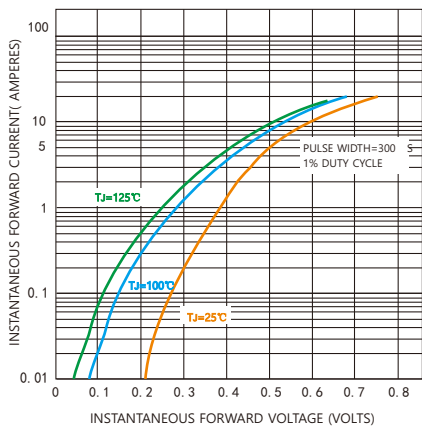


FIG.5-TYPICAL JUNCTION CAPACITANCE

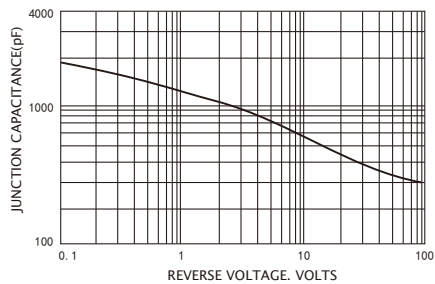


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

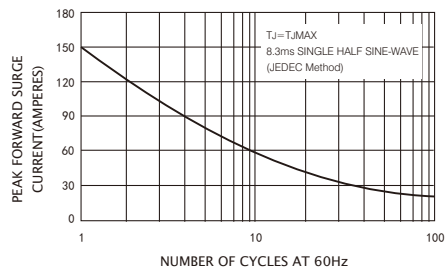
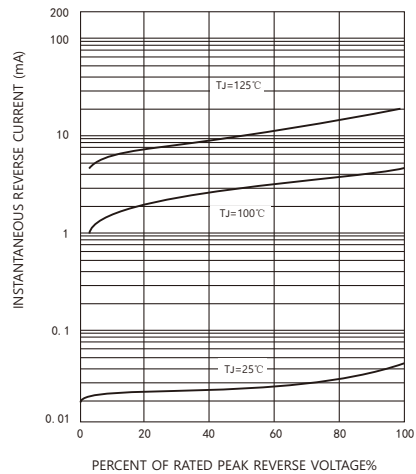
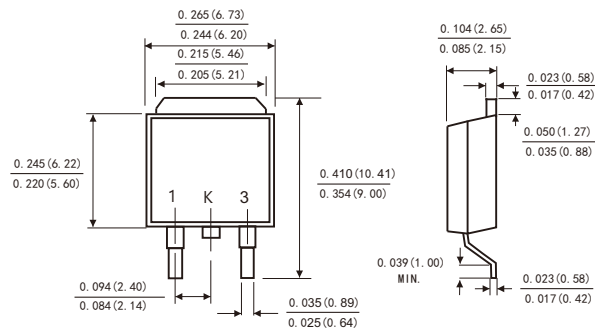


FIG.4-TYPICAL REVERSE CHARACTERISTICS

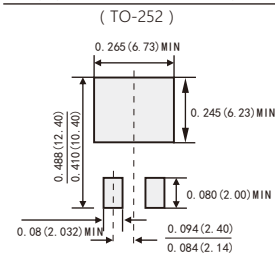


PACKAGE OUTLINE DIMENSIONS

TO-252



Suggested Pad Layout



Dimensions in inches and (millimeters)

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