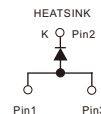


FEATURES

- Plastic package has Underwriters Laboratory Flammability Classification 94V-0
- Metal silicon junction ,majority carrier conduction
- Guard ring for overvoltage protection
- Low power loss ,high efficiency
- High current capability ,low forward voltage drop
- High surge capability
- High temperature soldering guaranteed:260°C/10 seconds at terminals
- Component in accordance to RoHS 2015/863/EU



TO-252 (DPAK)



MECHANICAL DATA

- Case: JEDEC TO-252 molded plastic body
- Terminals: Lead solderable per MIL-STD-750,method 2026
- Polarity: As marked
- Mounting Position: Any

TYPICAL APPLICATIONS

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

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	15.0A
V_{RRM}	45V
I_{FSM}	200A
V_F at $I_F=15.0A$ (125°C)	0.43V
T_{JMAX}	150°C

MAXIMUM RATINGS

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

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	45	V
Maximum average forward rectified current(see fig.1)	$I_{F(AV)}$	15	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 SR1545LM3

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

Parameter	Test Conditions		Symbol	TYP.	MAX.	Unit
Instantaneous forward voltage	Per leg IF=15.0A	T _A =25°C	V _F ¹⁾	0.49	0.55	V
		T _A =100°C		0.44	-	
		T _A =125°C		0.43	-	
	Per leg IF=5.0A	T _A =25°C		0.39	0.45	
		T _A =100°C		0.32	-	
		T _A =125°C		0.29	-	
Reverse current	VR=45V	T _A =25°C	I _R ²⁾	20	50	μA
		T _A =100°C		-	5	mA
		T _A =125°C		7.1	15	
Typical junction capacitance	4V,1MHz		C _J	1380		pF

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

2.Pulse test: pulse width≤40ms

THERMAL CHARACTERISTICS

Parameter	Symbol	SR1545LM3	Unit
Typical thermal resistance ³⁾	R _{θJC}	2.5	°C/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)
SR1545LM3-TO-252	P/T	548×151×37	4500	565×225×170	5

RATINGS AND CHARACTERISTIC CURVES SR1545LM3

FIG.1-FORWARD CURRENT DERATING CURVE

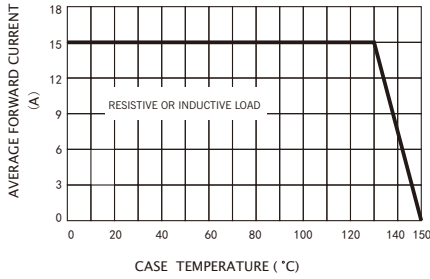


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

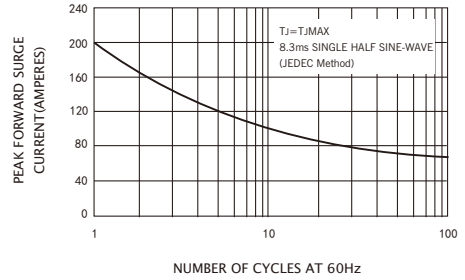


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

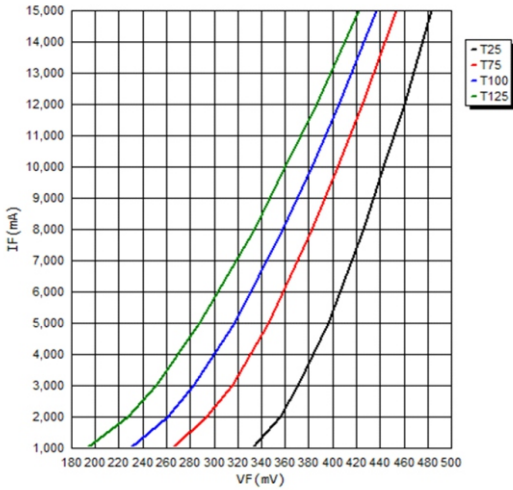


FIG.4-TYPICAL REVERSE CHARACTERISTICS

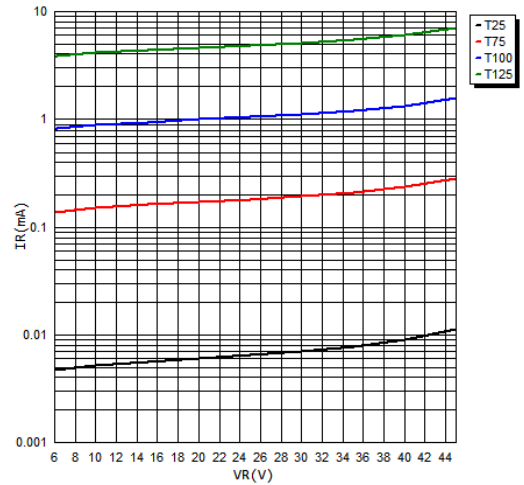
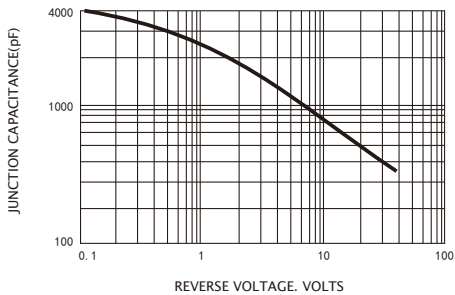


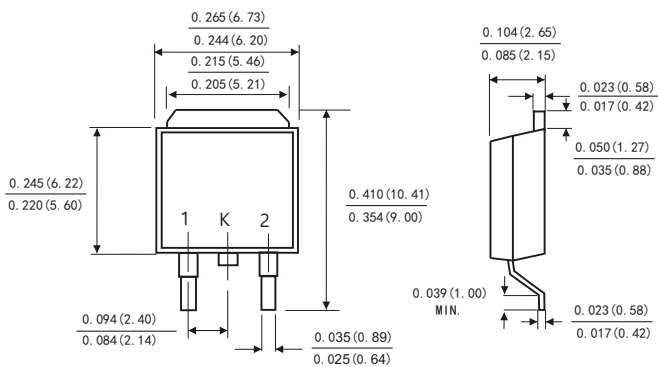
FIG.5-TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS

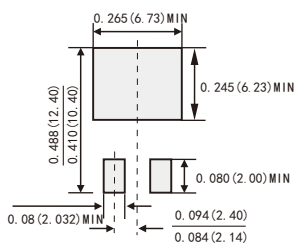
Dimensions in inches and (millimeters)

TO-252



Suggested Pad Layout

(TO-252)



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