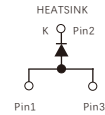


FEATURES

- 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

MAXIMUM RATINGS

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

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	80	V
Maximum average forward rectified current (see fig.1)	$I_{F(AV)}$	30	A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I_{FSM}	250	A
Operating junction and Storage temperature range	T_J, T_{stg}	-55 to +150	°C

PRIMARY CHARACTERISTICS	
$I_{F(AV)}$	30A
V_{RRM}	80V
I_{FSM}	250A
V_f at $I_f=30A, 25^\circ C$	0.68V Typ
I_s at $V_r=80V, 25^\circ C$	50 μ A Typ
$T_{J(MAX)}$	150°C
Package	TO-252
Diode variations	Single Chip

RATINGS AND CHARACTERISTIC OF SR3080LM3

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⁾	0.42	-	V
		I _F =15.0A		0.51	-	
		I _F =30.0A		0.68	0.75	
	T _J =125°C	I _F =5.0A		0.31	-	
		I _F =15.0A		0.47	-	
		I _F =30.0A		0.62	-	
Reverse current	V _R =80V	T _J =25°C	I _R ²⁾	50	100	μA
		T _J =100°C		9.0	-	mA
		T _J =125°C		40	60	
Typical junction capacitance	4V,1MHz		C _J	1200		pF

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

2.Pulse test: pulse width≤40ms

THERMAL CHARACTERISTICS

Parameter	Symbol	SR3080LM3	Unit
Typical thermal resistance ³⁾	R _{θJC}	2.5	°C/W

3.Thermal resistance from junction to case

AVAILABLE PACK INFORMATION

Product code	Pack	Carton Size L×W×H(mm)	Inner Box Size L×W×H(mm)	Tube Length (mm)	Inner Box Number	Tube Number Per A Inner Box	Part Number Per A Tube	Quantity(carton) (K)
SR3080LM3- TO-252	Tube	565×225×170	548×151×37	520	5	60	75	22.5
Product code	Pack	Carton Size L×W×H(mm)	Inner Box Size L×W×H(mm)	Reel Diameter (mm)	Inner Box Number	Reel Number Per A Inner Box	Part Number Per A Reel	Quantity(carton) (K)
SR3080LM3- TO-252	Reel	364×364×250	346×346×23	φ328	10	1	2500	25

FIG.1-FORWARD CURRENT DERATING CURVE

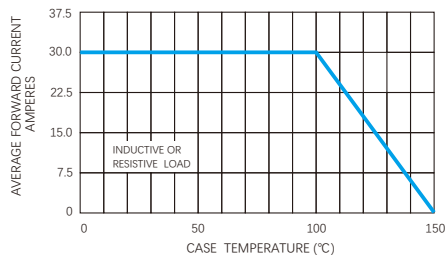


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

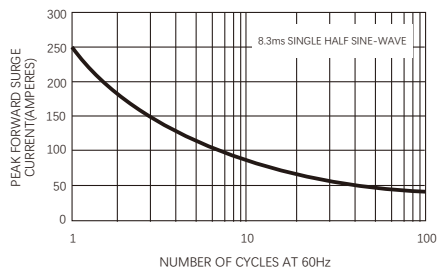


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

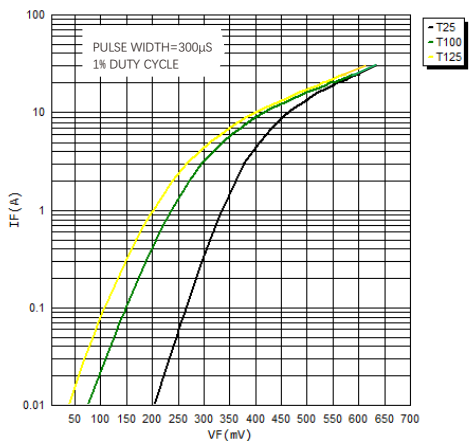


FIG.4-TYPICAL REVERSE CHARACTERISTICS

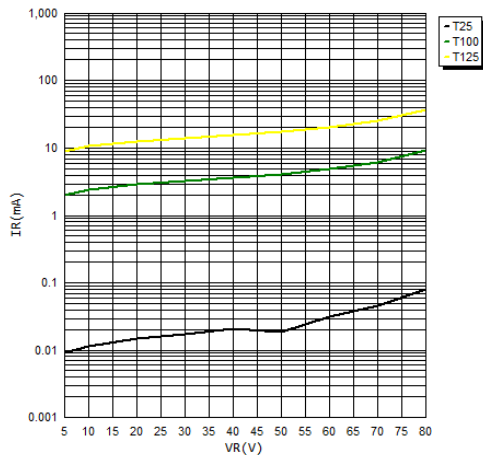
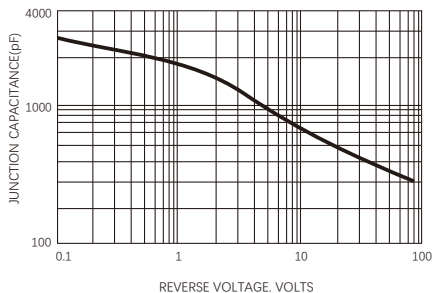
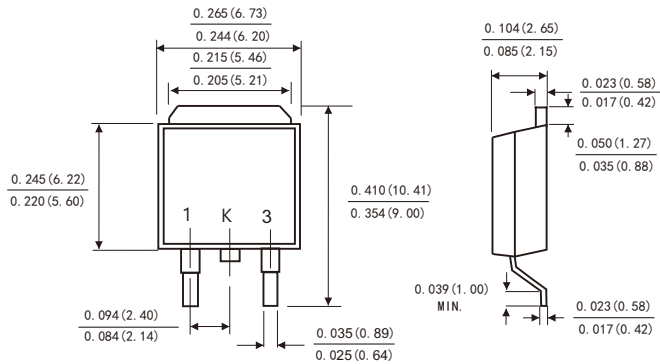


FIG.5-TYPICAL JUNCTION CAPACITANCE



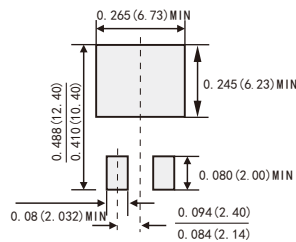
Dimensions in inches and (millimeters)

TO-252



Suggested Pad Layout

(TO-252)



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