

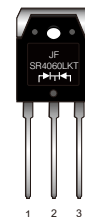
FEATURES

- 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
- Solder bath temperature 275℃ maximum, 10s, per JESD22-B106
- Component in accordance to RoHS 2015/863/EU



TO-3P

SR4060LKT



MECHANICAL DATA

- Case: JEDEC TO-3P
- 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

$I_F(AV)$	2×20A
V_{RRM}	60V
I_{FSM}	300A
V_F at $I_F=20.0A$,Per leg	0.54V
I_R	100 μ A
$T_J(MAX)$	150℃
Package	TO-3P
Diode variations	Common cathode

MAXIMUM RATINGS

(Ratings at 25℃ ambient temperature unless otherwise specified)

Parameter	Symbol	Value	Unit
Maximum repetitive peak reverse voltage	V_{RRM}	60	V
Maximum average forward rectified current (see fig.1)	$I_F(AV)$	20.0	A
		40.0	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I_{FSM}	300	A
Peak repetitive reverse current per diode at $t_p=2 \mu s$ 1KHz	I_{RRM}	0.5	A
Operating junction and Storage temperature range	T_J, T_{stg}	-55 to +150	℃

RATINGS AND CHARACTERISTIC OF SR4060LKT

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

Parameter	Test Conditions		Symbol	TYP.	MAX.	Unit
Instantaneous forward voltage	Per leg I _F =20.0A	T _A =25°C	V _F ¹⁾	0.54	0.56	V
		T _A =100°C		0.51	—	
		T _A =125°C		0.50	—	
	Per leg I _F =10.0A	T _A =25°C		0.45	—	
		T _A =100°C		0.39	—	
		T _A =125°C		0.37	—	
Reverse current	V _R =60V	T _A =25°C	I _R ²⁾	100	150	μ A
		T _A =100°C		7	10	mA
		T _A =125°C		20	50	
Typical junction capacitance	4V, 1MHz		C _J	1. 91		nF

Notes: 1.Pulse test: 300 μ s pulse width,1% duty cycle
2.Pulse test: pulse width≤40ms

THERMAL CHARACTERISTICS

Parameter	Symbol	TO-3P	Unit
Typical thermal resistance ³⁾	R _{θJC}	1.4	°C/W

3.Thermal resistance from junction to case

RATINGS AND CHARACTERISTIC OF SR4060LKT

FIG.1-FORWARD CURRENT DERATING CURVE

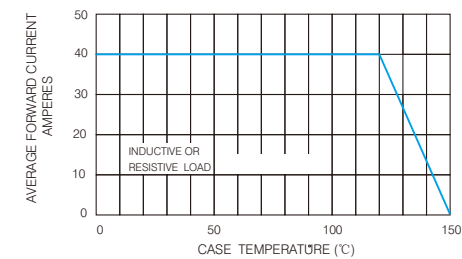


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

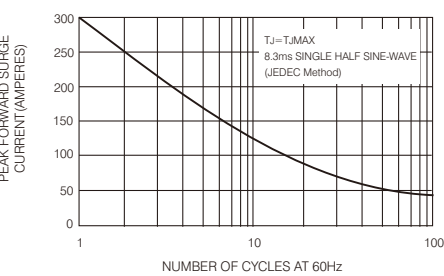


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

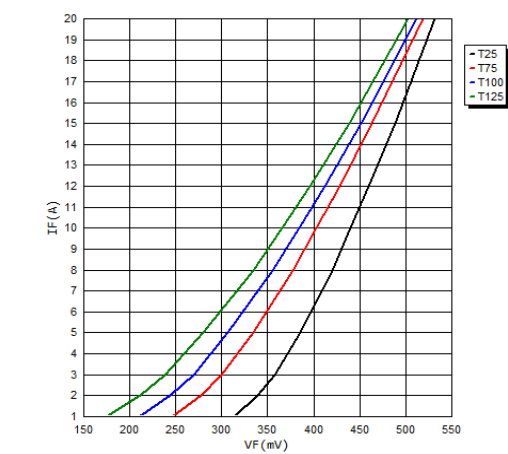


FIG.4-TYPICAL REVERSE CHARACTERISTICS

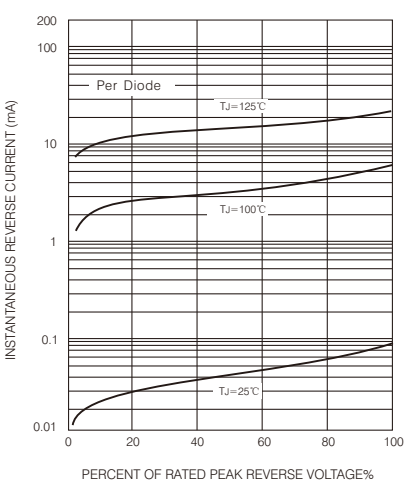
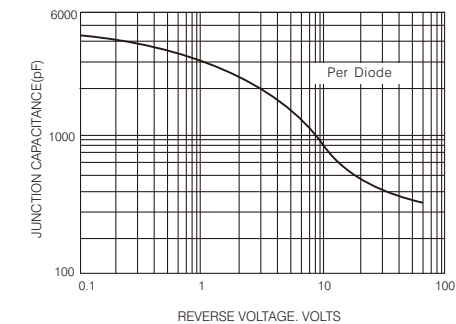
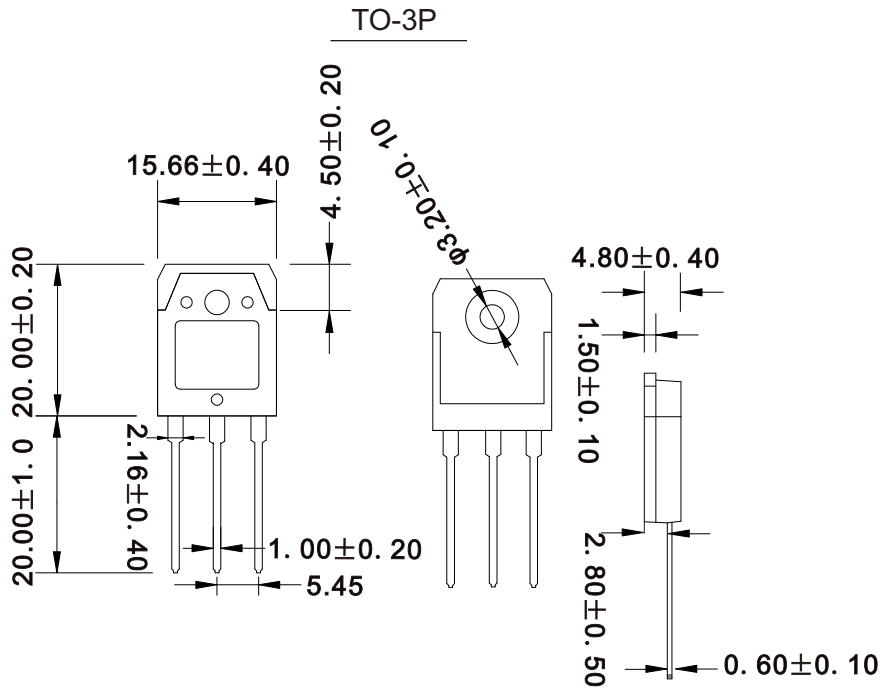


FIG.5-TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS



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