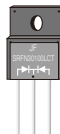


FEATURES

- 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
- Solder bath temperature 275°C maximum, 10s, per JESD22-B106 (for ITO-220AB-N package)
- Component in accordance to RoHS 2015/863/EU



ITO-220AB-N
SRFN30100LCT



1 2 3



MECHANICAL DATA

- Case: ITO-220AB-N
- 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

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 average forward rectified current (see fig.1)	Per leg	15.0	A
	Total device	30.0	
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC method at rated TL)	I _{FSM}	250	A
Peak repetitive reverse current per diode at tp=2 μs 1 KHz	I _{RRM}	0.5	A
Operating junction and Storage temperature range	T _J , T _{stg}	-55 to +150	°C
Isolation voltage from terminals to heatsink t=1 min	V _{AC}	1500	V

PRIMARY CHARACTERISTICS	
I _r (AV)	2×15A
V _{RRM}	100V
I _{rSM}	250A
V _f at I _r =5.0A,125°C Per leg	0.45V
I _n	20 μ A
T _J (MAX)	150°C
Package	ITO-220AB-N
Diode variations	Common cathode

RATINGS AND CHARACTERISTIC OF SRFN30100LCT

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

Parameter	Test Conditions		Symbol	TYP.	MAX.	Unit
Instantaneous forward voltage	Per leg I _F =15.0A	T _A =25°C	V _F ¹⁾	0.69	0.75	V
		T _A =100°C		0.67	–	
		T _A =125°C		0.64	–	
	Per leg I _F =5.0A	T _A =25°C		0.50	–	
		T _A =100°C		0.47	–	
		T _A =125°C		0.45	–	
Reverse current	V _R =100V	T _A =25°C	I _R ²⁾	20	50	μA
		T _A =100°C		2	5	mA
		T _A =125°C		8	20	
Typical junction capacitance	4V, 1MHz		C _J	750		pF

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

2.Pulse test: pulse width ≤ 40ms

THERMAL CHARACTERISTICS

Parameter	Symbol	SRFN30100LCT	Unit
Typical thermal resistance ³⁾	R _{θJC}	4.5	°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)
SRFL30100LCT-T0-220AB-N	P/T	558×148×38	1000	565×225×170	5

RATINGS AND CHARACTERISTIC OF SRFN30100LCT

FIG.1-FORWARD CURRENT DERATING CURVE

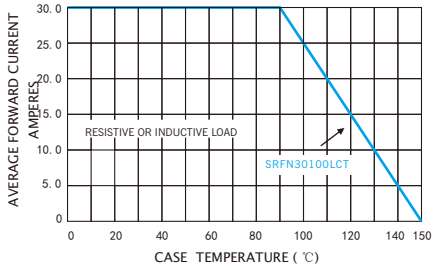


FIG.2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

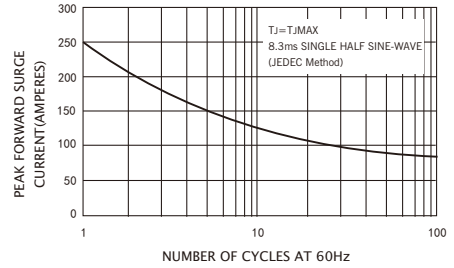


FIG.3-TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS

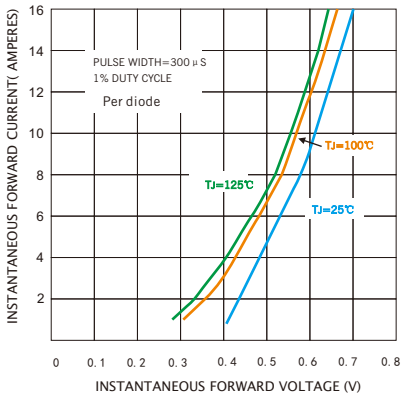


FIG.4-TYPICAL REVERSE CHARACTERISTICS

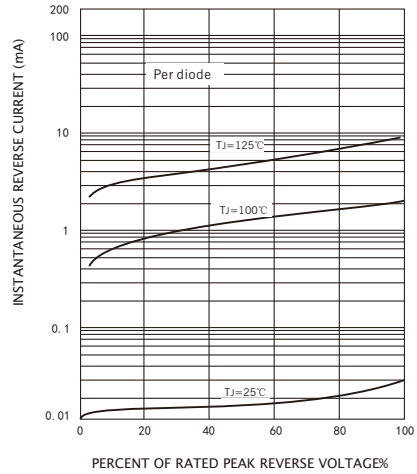
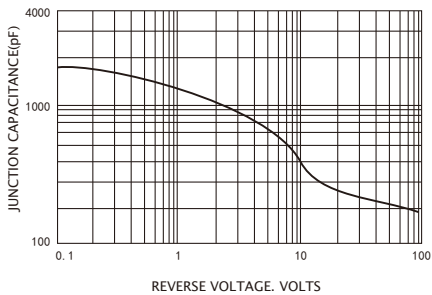
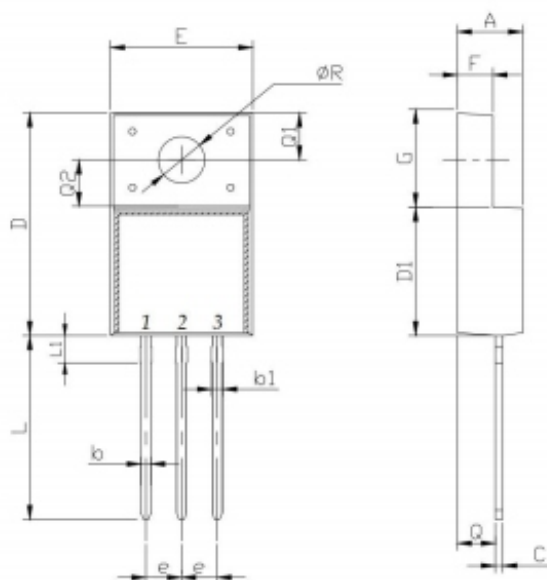


FIG.5-TYPICAL JUNCTION CAPACITANCE



PACKAGE OUTLINE DIMENSIONS

ITO-220AB-N



Symbol	Min	Typ	Max	Symbol	Min	Typ	Max
A	4.45	4.65	4.85	F	2.34	2.54	2.74
b	0.55	0.60	0.70	G	6.30	6.60	6.90
b1	0.6	0.70	0.80	L	12.70	13.00	13.30
C	0.45	0.50	0.60	L1	2.20	2.30	2.40
D	15.50	16.00	16.50	Q	2.70	2.80	2.90
D1	9.00	9.25	9.50	Q1	3.40	3.50	3.60
e	2.54			Q2	3.20	3.30	3.40
E	9.90	10.20	10.50	ϕR	3.00	3.20	3.40

Dimensions in millimeters

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