N5GSP-M84DDS-U000SA

STANDARD RECTIFIER GPP CHIP

HF halogen-free Pb Pb-Free RoHS COMPLIANT

VOLTAGE:	1000 Volts	CURRENT:	3 Ampers

FEATURES

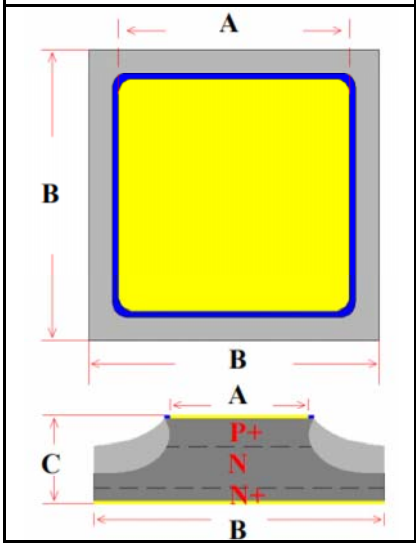
- Glass Passivated Chip Junction
- Low Forward Voltage Drop For High Efficiency
- Low Leakage Current For High Reliability
- High Forward Surge Capability For High Reliability

TYPICAL APPLICATIONS

- PD Fast Charger
- Swithch Power Supply
- LED Driver
- Audio Equipment

Mechanical Data

Chip Drawing



Chip Dimensions

	Symbol	Vale	Tolerance	Unit
Chip Size	A	2.108	±0.050	mm
Pad Size	B	1.428	±0.050	mm
Chip Thickness	C	0.255	±0.020	mm
Wafer Size		5	±0.10	in
		127	±2.54	mm

Chip Surface Coating

Top Metal	Ni-Ni-Au
Back Metal	Ni-Ni-Au
Passivation	Sipos+Glass+LTO

Maximum Ratings (Ta=25℃ Unless Otherwise Specified)

Parameter	Test Conditions	Symbol	N5GSP-M84DDS-U000SA	Unit
Maximum Repetitive Peak Reverse Voltage		V_{RRM}	1000	V
Maximum Average Forward Rectified Current	@TC= 100 ℃	$I_{F(AV)}$	3	A
Peak Forward Surge Current	8.3ms Single Half Sine-wave Superimposed On Rate Load	I_{FSM}	110	A

Electrical Characteristcs (Ta=25℃ Unless Otherwise Specified)

Parameter	Test Conditions		Symbol	N5GSP-M84DDS-U000SA			Unit
				Min.	Typ.	Max.	
Instaneous Forward Voltage Per Diode (note1)	Ta=25℃	I_F= 3.0 A	V_F	--	0.84	0.94	V
	Ta=125℃			--	0.72	0.82	
Maximum DC Reverse Current At Rated DC Blocking Voltage (Note 1)	Ta=25℃	V_R= V_{RRM}	I_{RRM}	--	0.10	1.00	uA
	Ta=125℃	V_R= 80%*V_{RRM}		--	50.00	100.00	

Thermal Characteristcs (Ta=25℃ Unless Otherwise Specified)

Parameter	Symbol	N5GSP-M84DDS-U000SA	Unit
Operating Junction Temperature Range	T_J	-55 to 150	℃
Storage Temperature Range	T_{STD}	-55 to 150	

Notes: 1.Pulse Test: 300 Us Pulse Width,1% Duty Cycle

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Typical Characteristics Curves

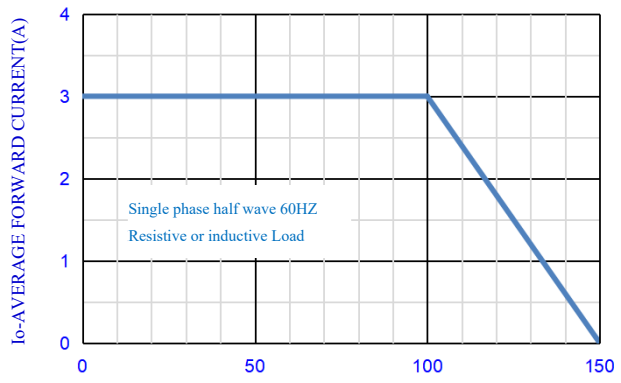

Fig.1-FORWARD CURRENT DERATING CURVE

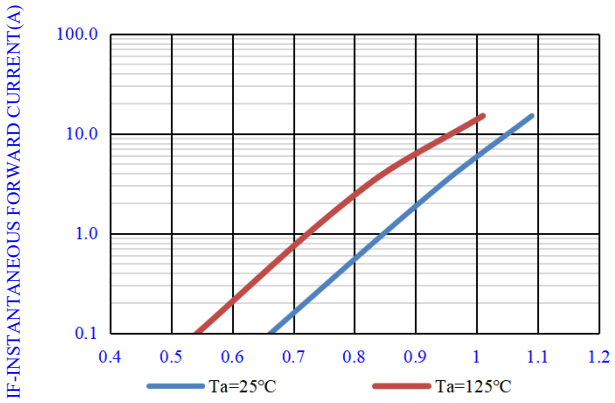

Fig.2- TYPICAL INSTANTANEOUS FORWARD

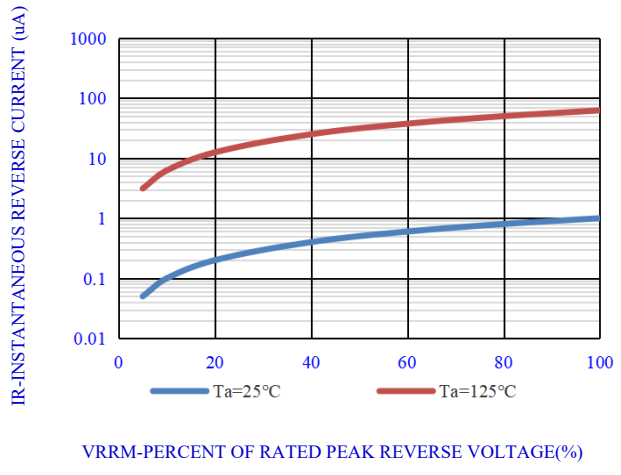

Fig.3- TYPICAL REVERSE CHARACTERISTICS

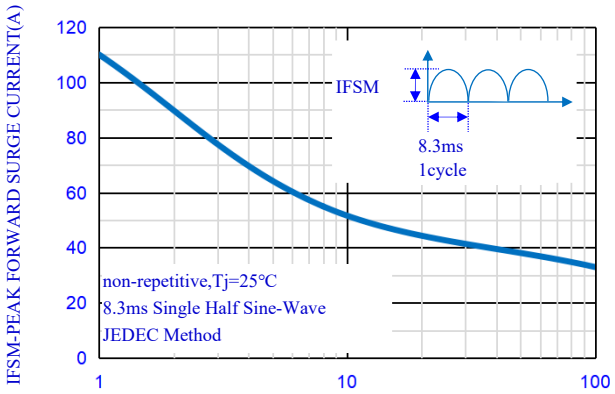

Fig.4-MAX. NON-REPETITIVE SURGE CURRENT

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