

**SURFACE MOUNT
SUPER FAST RECTIFIERS**

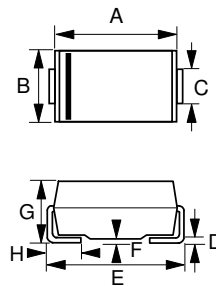
REVERSE VOLTAGE - **50 to 600** Volts
FORWARD CURRENT - **1.0** Ampere

FEATURES

- Glass passivated chip
- Super fast switching for high efficiency
- For surface mounted applications
- Low forward voltage drop and high current capability
- Low reverse leakage current
- Qualified according to AEC-Q101 Rev_C

MECHANICAL DATA

- Case : Molded plastic
- Case Material: Molding compound, UL Flammability classification 94V-0, "Halogen-free".
- Polarity : Indicated by cathode band
- Weight : 0.002 ounces, 0.064 grams

SMA


SMA		
DIM.	MIN.	MAX.
A	4.06	4.57
B	2.29	2.92
C	1.27	1.63
D	0.15	0.31
E	4.83	5.59
F	0.05	0.20
G	2.01	2.40
H	0.76	1.52
All Dimensions in millimeter		

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25°C ambient temperature unless otherwise specified.

CHARACTERISTICS	SYMBOL	ES1A	ES1B	ES1C	ES1D	ES1G	ES1J	UNIT
Maximum Recurrent Peak Reverse Voltage	VRRM	50	100	150	200	400	600	V
Maximum RMS Voltage	VRMS	35	70	105	140	280	420	V
Maximum DC Blocking Voltage	VDC	50	100	150	200	400	600	V
Maximum Average Forward Rectified Current @TL =110°C	I(AV)	1.0						A
Peak Forward Surge Current 8.3ms single half sine-wave super imposed on rated load (JEDEC METHOD)	IFSM	30						A
Maximum forward Voltage at 1.0A DC	VF	0.92				1.25	1.30	V
Maximum DC Reverse Current @TJ =25 °C at Rated DC Blocking Voltage @TJ=125 °C	IR	5.0 200						uA
Maximum Reverse Recovery Time (Note 1)	TRR	25					35	ns
Typical Reverse Recovery Time	TRR	20					30	ns
Typical Junction Capacitance (Note 2)	CJ	20						pF
Typical Thermal Resistance (Note 3)	ROJA	90						°C/W
	ROJL	30						
	ROJC	25						
Operating Temperature Range	TJ	-55 to + 150						°C
Storage Temperature Range	TSTG	-55 to + 150						°C

NOTES : 1.Reverse Recovery Test Conditions : I_F=0.5A, I_R=1.0A, I_{RR}=0.25A.

2.Measured at 1.0MHz and applied reverse voltage of 4.0V DC.

3.Thermal Resistance junction to Ambient, Lead and Case.

REV.-10, Sep-2019, KSGA01

Please be aware that an **Important Notice and Disclaimer** concerning availability, disclaimers, and use in critical applications of LSC products thereto appears at the end of this Data Sheet.

FIG.1 - FORWARD CURRENT DERATING CURVE

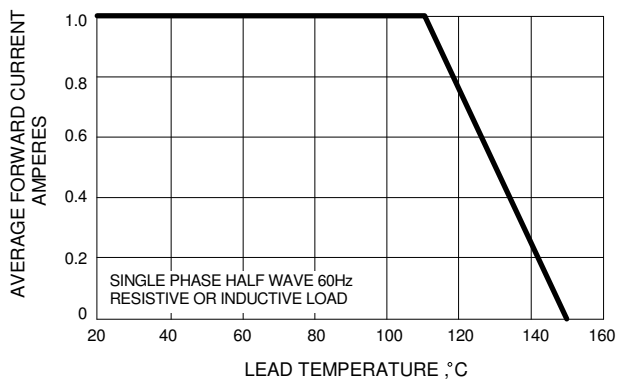


FIG.2 - MAXIMUM NON-REPETITIVE SURGE CURRENT

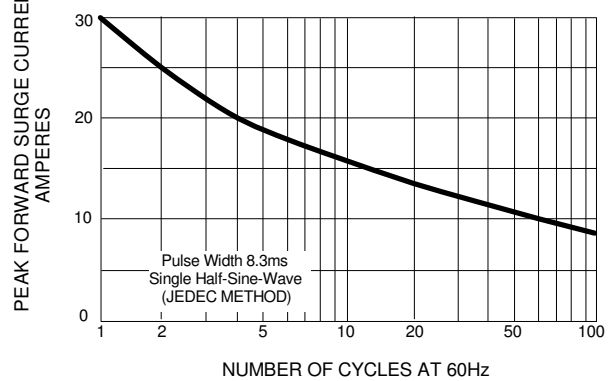


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

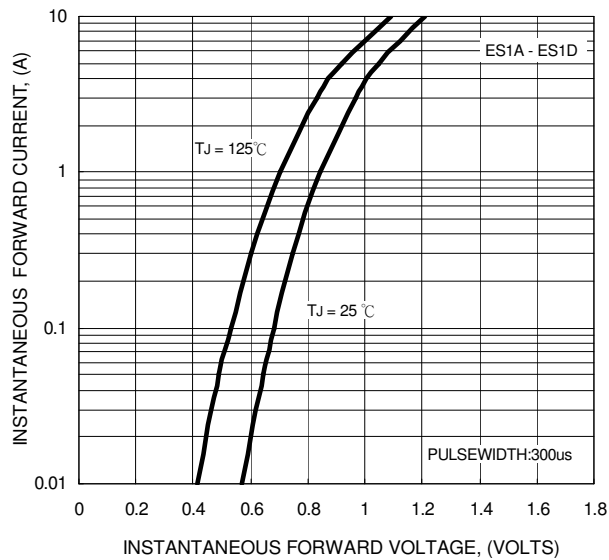


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

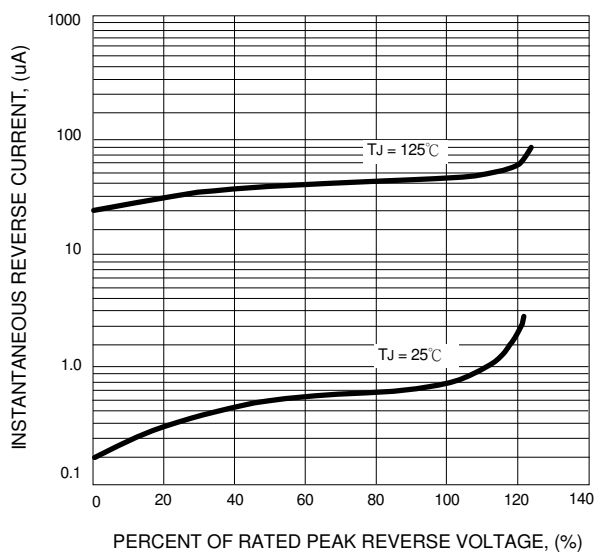


FIG.5 - TYPICAL FORWARD CHARACTERISTICS

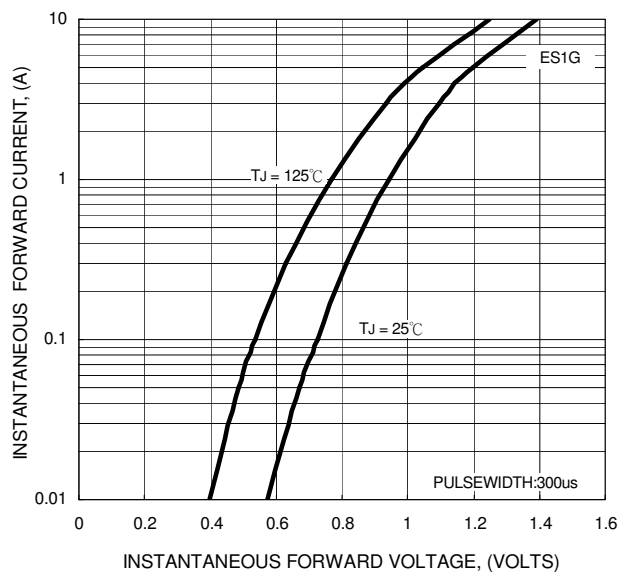
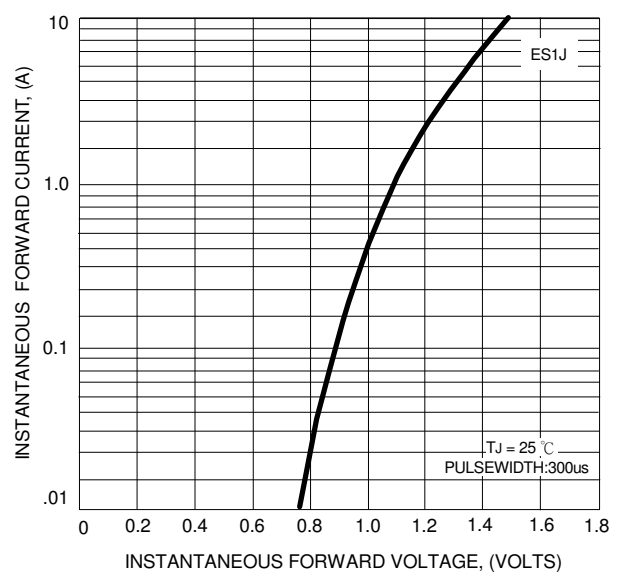


FIG.6 - TYPICAL FORWARD CHARACTERISTICS



IMPORTANT NOTICE AND DISCLAIMER

LSC reserves the right to make changes to this document and its products and specifications at any time without notice. Customers should obtain and confirm the latest product information and specifications before final design purchase or use.

ALL INFORMATION ARE PROVIDED AS-IS, EVEN IT HAS QUALIFIED BY THE AEC-Q101 WHICH SATISFY INDUSTRIAL APPLICATION REQUIREMENT, EXCEPT AS EXPRESSLY STATED IN THIS DATA SHEET IS APPLIED FOR AUTOMOTIVE GRADE, LSC MAKE NO WARRANTIES, REPRESENTATION OR GUARANTEE, WHETHER EXPRESS, IMPLIED OR STATUTORY, INCLUDING, WITHOUT LIMITATION, REGARDING ANY MERCHANTABILITY, SATISFACTORY QUALITY, OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE LSC TECHNOLOGY.

LSC DOES NOT ASSUME ANY LIABILITY OR COMPENSATION FOR ANY APPLICATION ASSISTANCE OR CUSTOMER PRODUCT DESIGN, AND MAKE NO WARRANTY OR ACCEPT ANY LIABILITY WITH PRODUCTS, WHICH ARE PURCHASED OR USED FOR ANY UNINTENDED OR UNAUTHORIZED APPLICATION.

No license is granted by implication or otherwise under any intellectual property rights of LSC.

LSC products are not authorized for use as critical components in life support devices or systems without