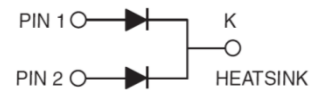


- High current capability
- High surge current capability
- Compliant to RoHS Directive 2011/65/EU and in accordance to WEEE 2002/96/EC
- Halogen-free according to IEC 61249-2-21 definition



TO-263AB (D²PAK)



MECHANICAL DATA

Case: TO-263AB (D²PAK)

Molding compound, UL flammability classification rating 94V-0

Moisture sensitivity level: level 1, per J-STD-020

Part No. with suffix "H" means AEC-Q101 qualified

Packing code with suffix "G" means green compound (halogen-free)

Terminal: Matte tin plated leads, solderable per JESD22-B102

Meet JESD 201 class 2 whisker test

Polarity: As marked

Weight: 1.41 g (approximately)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS (T_A=25°C unless otherwise noted)

PARAMETER	SYMBOL	SFS	SFS	SFS	SFS	SFS	SFS	SFS	
		1601	1602	1603	1604	1605	1606	1607	
		G	G	G	G	G	G	G	
Maximum repetitive peak reverse voltage	V _{RRM}	50	100	150	200	300	400	500	
Maximum RMS voltage	V _{RMS}	35	70	105	140	210	280	350	
Maximum DC blocking voltage	V _{DC}	50	100	150	200	300	400	500	
Maximum average forward rectified current	I _{F(AV)}	16							
Peak forward surge current, 8.3 ms single half sine-wave superimposed on rated load	I _{FSM}	125							
Maximum instantaneous forward voltage (Note 1) I _F = 8 A	V _F	0.975				1.3			
Maximum reverse current @ rated V _R	I _R	T _J =25°C		10					
		T _J =125°C		400					
Maximum reverse recovery time (Note 2)	t _{rr}	35							
Typical junction capacitance (Note 3)	C _J	80				60			
Typical thermal resistance	R _{θJC}	2.5							
Operating junction temperature range	T _J	- 55 to +150							
Storage temperature range	T _{STG}	- 55 to +150							

Note 1: Pulse test with PW=300μs, 1% duty cycle

Note 2: Reverse Recovery Test Conditions: I_F=0.5A, I_R=1.0A, I_{RR}=0.25A

Note 3: Measured at 1 MHz and Applied Reverse Voltage of 4.0V D.C.

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EXAMPLE					
PREFERRED PART NO.	PART NO.	PART NO. SUFFIX	PACKING CODE	PACKING CODE SUFFIX	DESC
SFS1608GHRNG	SFS1608G	H	RN	G	AEC-Q Green

RATINGS AND CHARACTERISTICS CURVES

($T_A=25^\circ\text{C}$ unless otherwise noted)

FIG. 1 FORWARD CURRENT DERATING CURVE

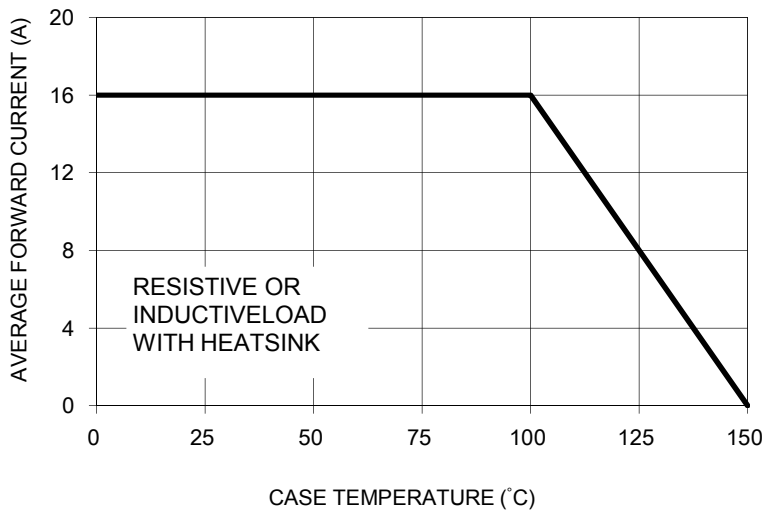


FIG. 2 TYPICAL REVERSE CHARACTERISTICS

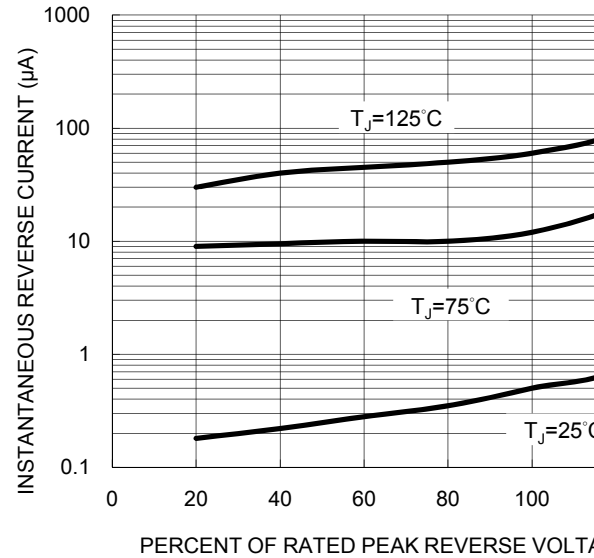


FIG. 3 MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT

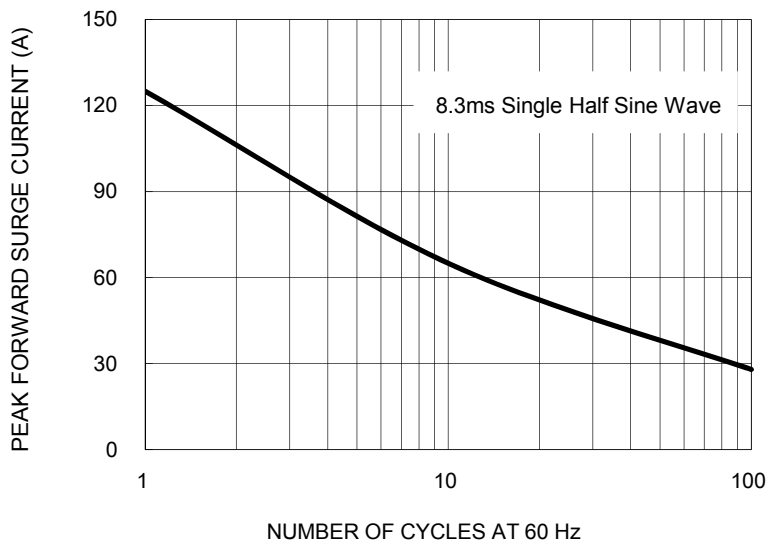
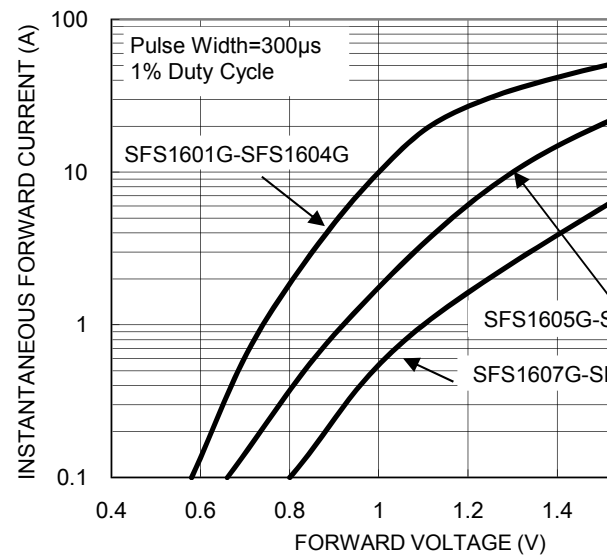
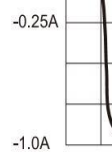
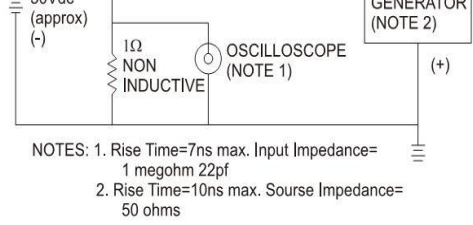
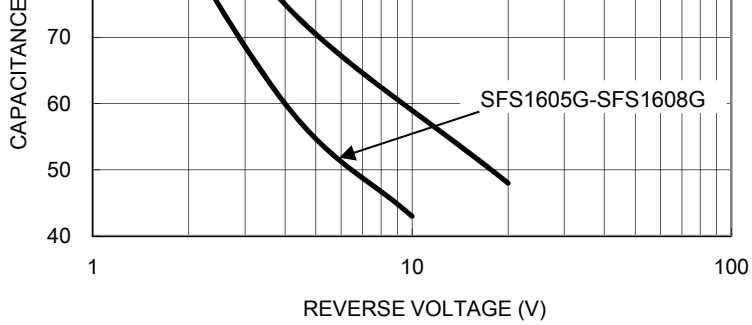


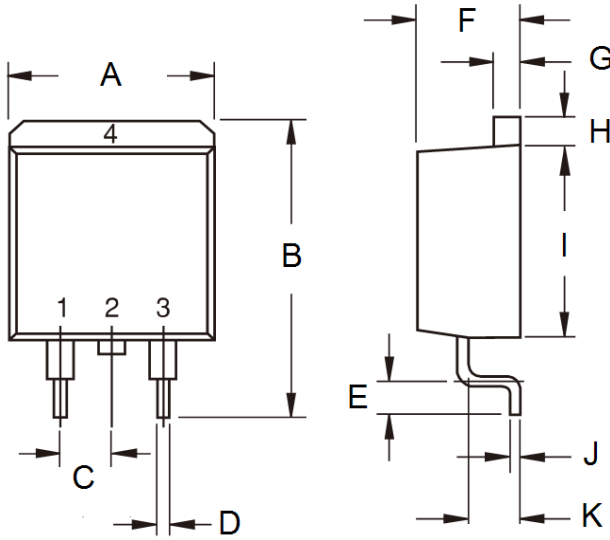
FIG. 4 TYPICAL FORWARD CHARACTERISTICS





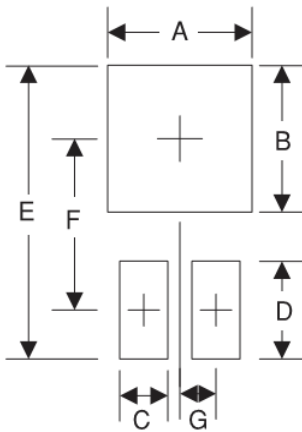
PACKAGE OUTLINE DIMENSIONS

TO-263AB (D²PAK)



DIM.	Unit (mm)		Unit (inch)	
	Min	Max	Min	Max
A	-	10.5	-	0.413
B	14.60	15.88	0.575	0.625
C	2.41	2.67	0.095	0.105
D	0.68	0.94	0.027	0.037
E	2.29	2.79	0.090	0.110
F	4.44	4.70	0.175	0.185
G	1.14	1.40	0.045	0.055
H	1.14	1.40	0.045	0.055
I	8.25	9.25	0.325	0.364
J	0.36	0.53	0.014	0.021
K	2.03	2.79	0.080	0.110

SUGGESTED PAD LAYOUT



Symbol	Unit (mm)	Unit (inch)
A	10.8	0.425
B	8.3	0.327
C	1.1	0.043
D	3.5	0.138
E	16.9	0.665
F	9.5	0.374
G	2.5	0.098

MARKING DIAGRAM



- P/N = Specific Device Code
- G = Green Compound
- YWW = Date Code
- F = Factory Code

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