

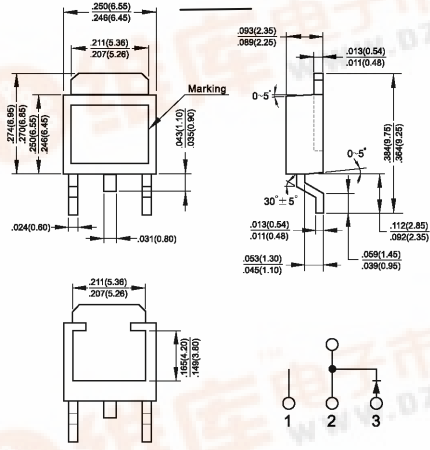


Preliminary

	<h2>SFAD301G THRU SFAD308G</h2> <p>3.0 AMPS. Glass Passivated Super Fast Rectifiers</p>
	<p>Voltage Range 50 to 600 Volts Current 3.0 Amperes</p>
<p>Features</p> <ul style="list-style-type: none"> ✧ Ultrafast Recovery ✧ Low forward voltage drop ✧ High current capability ✧ High reliability ✧ High surge current capability <p>Mechanical Data</p> <ul style="list-style-type: none"> ✧ Case: Epoxy molded ✧ Epoxy: UL 94V-O rate flame retardant ✧ Terminals: Leads solderable per MIL-STD-202, Method 208 guaranteed ✧ Polarity: As marked ✧ High temperature soldering guaranteed: 260°C/10 seconds. ✧ Weight: 0.4 grams 	<p style="text-align: center;">DKPAK</p>  <p style="text-align: center;">Dimensions in inches and (millimeters)</p>

Maximum Ratings and Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified.

Single phase, half wave, 60 Hz, resistive or inductive load.

For capacitive load, derate current by 20%

Type Number	Symbol	SFAD 301G	SFAD 302G	SFAD 303G	SFAD 304G	SFAD 305G	SFAD 306G	SFAD 307G	SFAD 308G	Units
Maximum Recurrent Peak Reverse Voltage	V_{RRM}	50	100	150	200	300	400	500	600	V
Maximum RMS Voltage	V_{RMS}	35	70	105	140	210	280	350	420	V
Maximum DC Blocking Voltage	V_{DC}	50	100	150	200	300	400	500	600	V
Maximum Average Forward Rectified Current @ $T_C = 137^\circ C$	$I_{(AV)}$	3.0								A
Peak Forward Surge Current, 8.3 ms Single Half Sine-wave Superimposed on Rated Load (JEDEC method)	I_{FSM}	55								A
Maximum Instantaneous Forward Voltage @3.0A	V_F	1.1		1.3			1.7			V
Maximum DC Reverse Current @ $T_A=25^\circ C$ at Rated DC Blocking Voltage @ $T_A=100^\circ C$	I_R	5.0				100				μA
Maximum Reverse Recovery Time (Note 1)	T_{rr}	35								nS
Typical Thermal Resistance (Note3)	$R_{\theta JC}$	10								$^\circ C/W$
Typical Junction Capacitance (Note 2)	C_j	80				60				pF
Operating Temperature Range	T_J	-65 to +150								$^\circ C$
Storage Temperature Range	T_{STG}	-65 to +150								$^\circ C$

Notes: 1. Reverse Recovery Test Conditions: $I_F=0.5A$, $I_R=1.0A$, $IRR=0.25A$.

2. Measured at 1 MHz and Applied Reverse Voltage of 4.0 V D.C.

3. Thermal Resistance from Junction to Case.



RATINGS AND CHARACTERISTIC CURVES (SFAD301G THRU SFAD308G)

FIG.1- REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

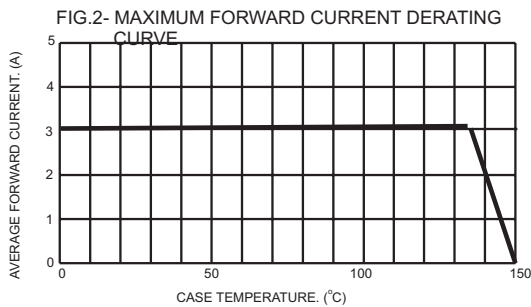
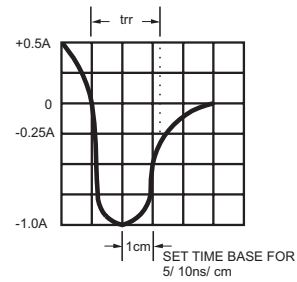
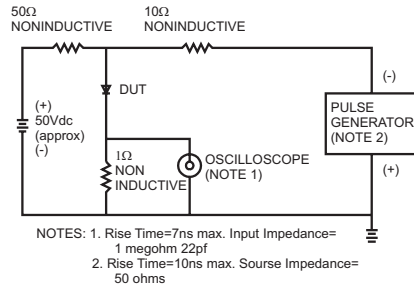


FIG.3- TYPICAL REVERSE CHARACTERISTICS

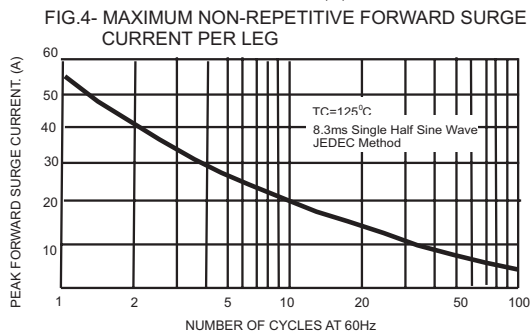
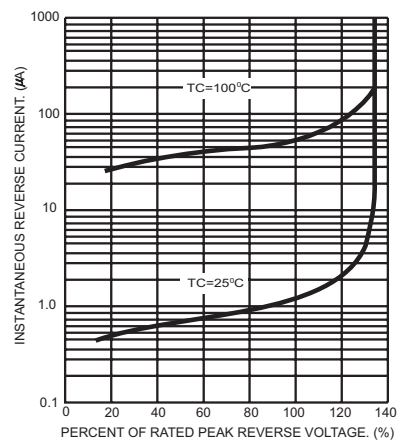


FIG.6- TYPICAL FORWARD CHARACTERISTICS PER LEG

