

### HIGH EFFICIENCY RECTIFIERS

REVERSE VOLTAGE: 50 - 1000 V

CURRENT: 0.7 A

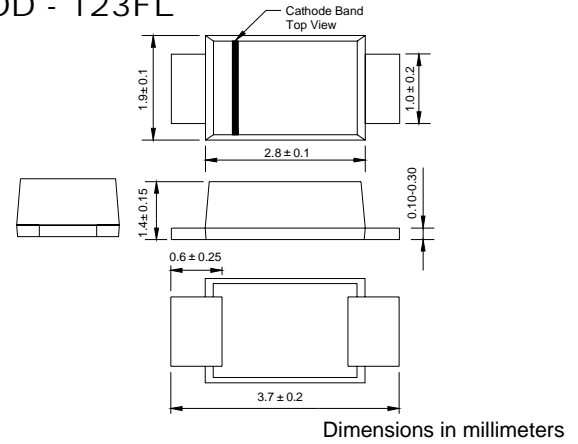
#### FEATURES

- Low forward surge current
- Ideal for surface mounted applications
- Low leakage current

#### MECHANICAL DATA

- Case: JEDEC SOD-123FL, molded plastic over passivated chip
- Terminals: Solder Plated, solderable per MIL-STD-750, Method 2026
- Polarity: Color band denotes cathode end
- Weight: 0.006 ounces, 0.02 gram
- Mounting position: Any

SOD - 123FL



### MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Ratings at 25 °C ambient temperature unless otherwise specified.

Single phase, half wave, 60Hz, resistive or inductive load. For capacitive load, derate current by 20%.

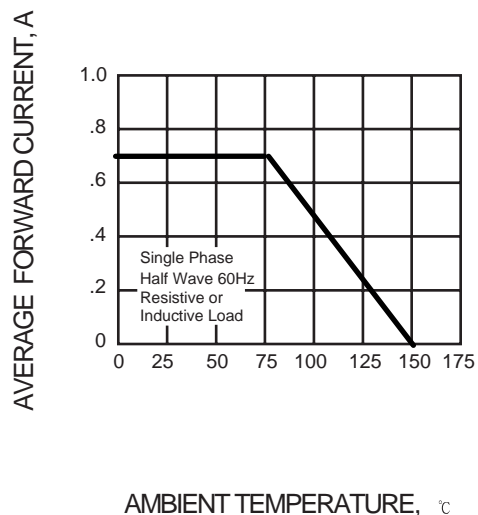
#### ABSOLUTE RATINGS

		UF 07A	UF 07B	UF 07D	UF 07G	UF 07J	UF 07K	UF 07M	UNITS
Device marking code		UA	UB	UD	UG	UJ	UK	UM	
Maximum recurrent peak reverse voltage	$V_{RRM}$	50	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	35	70	140	280	420	560	700	V
Maximum DC blocking voltage	$V_{DC}$	50	100	200	400	600	800	1000	V
Maximum average forward rectified current @ $T_A=75$	$I_{(AV)}$	0.7							A
Peak forward surge current 8.3ms single half-sine-wave superimposed on rated load	$I_{FSM}$	20							A
Maximum instantaneous forward voltage @ $I_{FM}=0.7A$ (Note 1)	$V_F$	1.0		1.4		1.7			V
Maximum DC reverse current @ $T_A=25$ at rated DC blocking voltage @ $T_A=125$	$I_R$	10 200							$\mu A$
Maximum reverse recovery time (Note 2)	$t_{rr}$	50				75			ns
Typical thermal resistance junction to lead	$R_{\theta JA}$	180							/W
Operating temperature range	$T_j$	- 55 --- + 150							
Storage temperature range	$T_{STG}$	- 55 --- + 150							

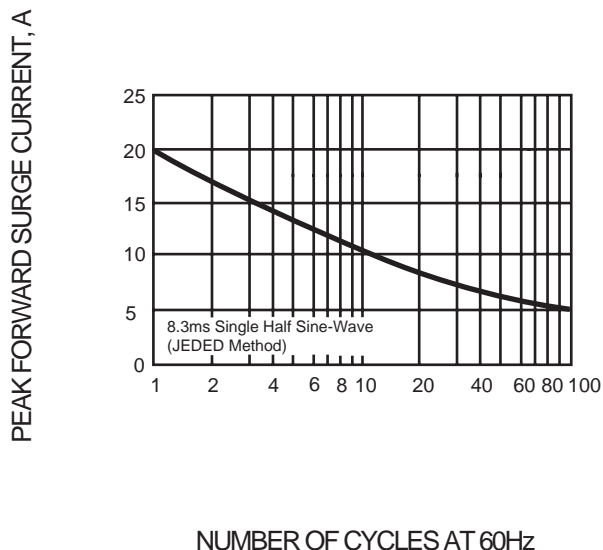
NOTE1. Pulse test: pulse width 300 $\mu$ sec, duty cycle 2%.

2. Measured with  $I_F=0.5A, I_R=1.0A, I_{rr}=0.25A$ .

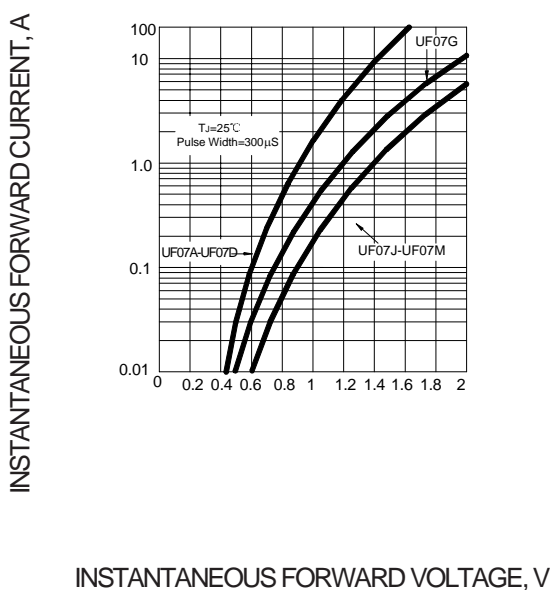
**FIG. 1 - TYPICAL FORWARD CURRENT DERATING CURVE**



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



**FIG. 3 - TYPICAL INSTANTANEOUS FORWARD CHARACTERISTICS**



**FIG. 4 - TYPICAL REVERSE CHARACTERISTICS**

