

1.0 Amp. Glass Passivated Fast Recovery Rectifiers

	A-405	Voltage 200 V to 1000 V	Current 1.0 A
		<ul style="list-style-type: none"> Glass passivated chip junction High efficiency, Low VF High current capability High reliability High surge current capability Low power loss 	
Dimensions in mm.		MECHANICAL DATA <ul style="list-style-type: none"> Cases: Molded plastic Epoxy: UL 94V-0 rate flame retardant Lead: Pure tin plated, lead free., solderable per MIL-STD-202, Method 208 guaranteed Polarity: Color band denotes cathode end High temperature soldering guaranteed: 260 °C/10 seconds/9.5mm lead lengths at 2.3kg., tension Mounting position: Any Weight: 0.22 gram 	

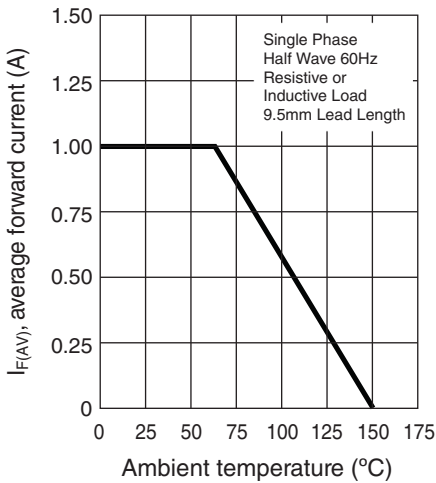
Maximum Ratings and Electrical Characteristics at 25 °C

		FR 103SG	FR 104SG	FR 105SG	FR 106SG	FR 107SG
V_{RRM}	Maximum Recurrent Peak Reverse Voltage (V)	200	400	600	800	1000
V_{RMS}	Maximum RMS Voltage (V)	140	280	420	560	700
V_{DC}	Maximum DC Blocking Voltage (V)	200	400	600	800	1000
$I_{(AV)}$	Maximum average Forward Rectified Current 9.5mm Lead Length @ $T_A = 55\text{ °C}$	1.0 A				
I_{FSM}	Peak Forward Surge Current 8.3 ms Single Half Sine-Wave Superimposed on Rated Load (JEDEC Method)	30 A				
V_F	Maximum Instantaneous Forward Voltage at 1.0A	1.3 V				
I_R	Maximum DC Reverse Current @ $T_A = 25\text{ °C}$ at Rated DC Blocking Voltage @ $T_A = 125\text{ °C}$	5.0 μ A 100 μ A				
T_{rr}	Maximum Reverse Recovery Time From $I_F = 0.5\text{ A}$; $I_R = 1.0\text{ A}$; $I_{RR} = 0.25\text{ A}$	150 nS		250 nS		500 nS
C_j	Typical Junction Capacitance at 1MHz and reverse voltage of $4V_{DC}$	15 pF				
$R_{th(j-a)}$	Typical Thermal Resistance (See note)	75 °C/W				
T_j	Operating Temperature Range	-65 to + 150 °C				
T_{stg}	Storage Temperature Range	-65 to + 150 °C				

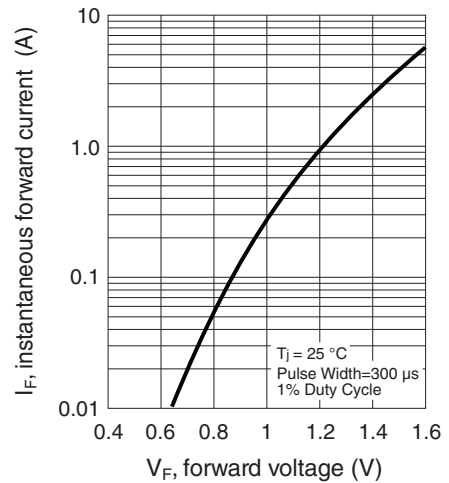
Note: Mount on Cu-Pad Size 5mm x 5mm on PCB.

Rating And Characteristic Curves

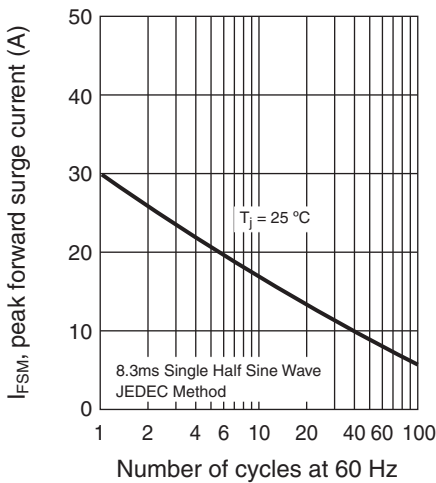
MAXIMUM FORWARD CURRENT DERATING CURVE



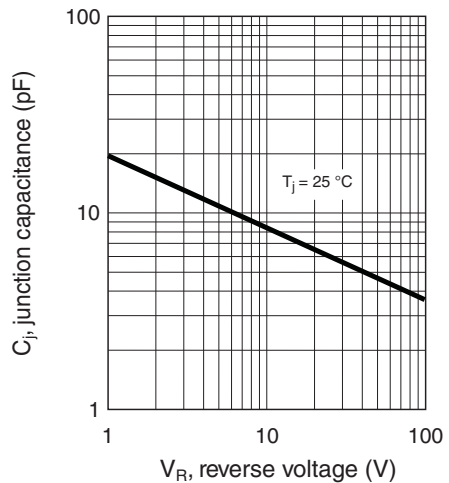
TYPICAL FORWARD CHARACTERISTICS



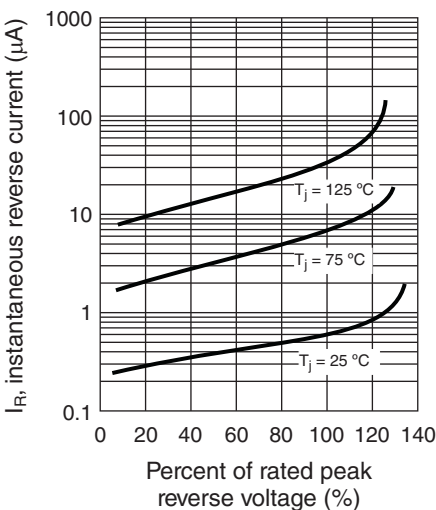
MAXIMUM NON-REPETITIVE FORWARD SURGE CURRENT



TYPICAL JUNCTION CAPACITANCE



TYPICAL REVERSE CHARACTERISTICS PER LEG



REVERSE RECOVERY TIME CHARACTERISTIC AND TEST CIRCUIT DIAGRAM

