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FAST RECOVERY HIGH VOLTAGE PHOTO FLASH RECTIFIER

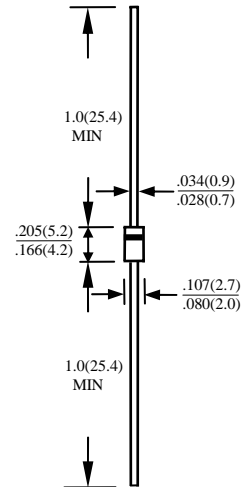
FR05-10G THRU FR05-20G

FEATURES

- FAST RECOVERY TIMES
- UL 94V0 FLAME RETARDANT EPOXY MOLDING COMPOUND
- LOW COST
- DESIGNED FOR PHOTO FLASH APPLICATION
- BEVELED ROUND CHIP
- GLASS PASSIVATED CHIP JUNCTION

MECHANICAL DATA

- CASE: TRANSFER MOLDED, DO41, DIMENSIONS IN INCHES AND (MILLIMETERS)
- LEADS: SOLDERABLE PER MIL-STD-202, METHOD 208
- POLARITY: CATHODE INDICATED BY COLOR BAND
- WEIGHT: 0.34 GRAMS



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS RATINGS 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%

RATINGS	SYMBOL	FR05-10G	FR05-15G	FR05-16G	FR05-18G	FR05-20G	UNITS	
MAXIMUM RECURRENT PEAK REVERSE VOLTAGE	V_{RRM}	1000	1500	1600	1800	2000	V	
MAXIMUM RMS VOLTAGE	V_{RMS}	700	1050	1120	1260	1400	V	
MAXIMUM DC BLOCKING VOLTAGE	V_{DC}	1000	1500	1600	1800	2000	V	
AVERAGE FORWARD RECTIFIED CURRENT AT $L=10\text{mm}$ $T_A=55^\circ\text{C}$	I_O	0.5						A
NOM-REPETITIVE PEAK FORWARD SURGE CURRENT, 8.3ms HALF SINE-WAVE	I_{FSM}	30						A
TYPICAL JUNCTION CAPACITANCE AT $V_R=4\text{V}$, FREQUENCY=1MHZ (NOTE 1)	C_J	15						PF
TYPICAL THERMAL RESISTANCE	$R_{\theta ja}$	50						°C/W
STORAGE TEMPERATURE RANGE	T_{STG}	-55 TO + 150						°C
OPERATING TEMPERATURE RANGE	T_{OP}	-55 TO + 150						°C

ELECTRICAL CHARACTERISTICS (AT $T_A=25^\circ\text{C}$ UNLESS OTHERWISE NOTED)

CHARACTERISTICS	SYMBOL	FR05-10G	FR05-15G	FR05-16G	FR05-18G	FR05-20G	UNITS
MAXIMUM FORWARD VOLTAGE AT I_O DC	V_F	2.0				3.0	V
MAXIMUM REVERSE CURRENT AT 25°C	I_R	5					μA
MAXIMUM REVERSE CURRENT AT 100°C	I_R	50					μA
TYPICAL REVERSE RECOVERY TIME	T_{RR}	500					nS

- NOTE: 1. MEASURED AT 1MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 VOLTS
2. BOTH LEADS ATTACHED TO HEAT SINK 20×20×1t(mm) COPPER PLATE AT LEAD LENGTH 5mm

RATINGS AND CHARACTERISTICS CURES FR05-10G THRU FR05-20G

FIG. 1-MAXIMUM CURRENT RATING
EFFECT OF COPPER AREA.
RESISTIVE/INDUCTIVE LOAD

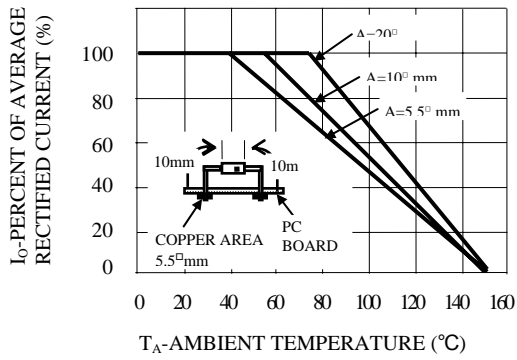


FIG. 2-MAXIMUM CURRENT RATING
CAPACITIVE LOAD,
10mm LEAD LENGTHS

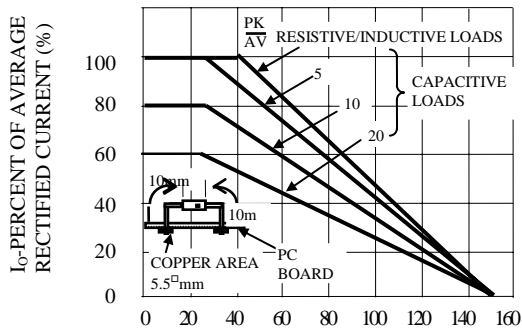


FIG. 3-MAXIMUM CURRENT RATING
EFFECT OF COPPER AREA.
RESISTIVE/INDUCTIVE LOAD

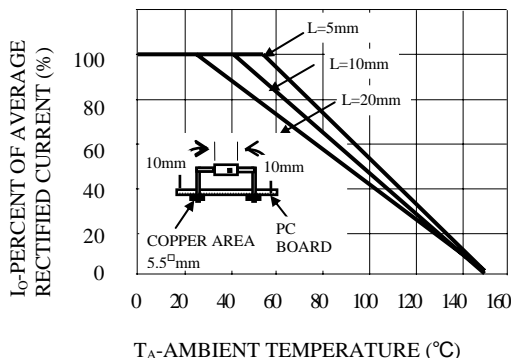


FIG. 4-TYPICAL REVERSE CHARACTERISTICS
AT $T_J=25^{\circ}C$

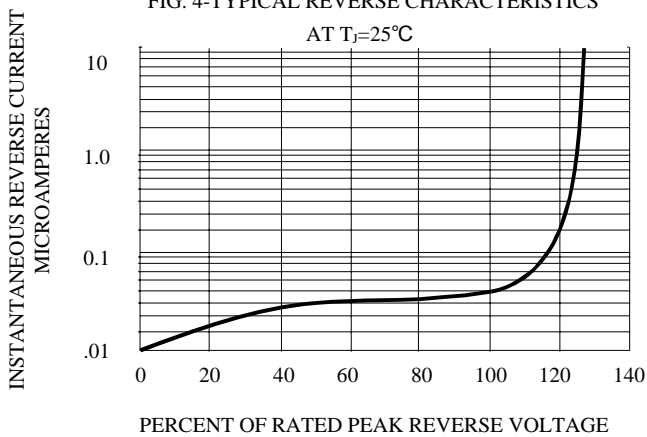


FIG. 5-MAXIMUM FORWARD SURGE
VS NUMBER OF CYCLES

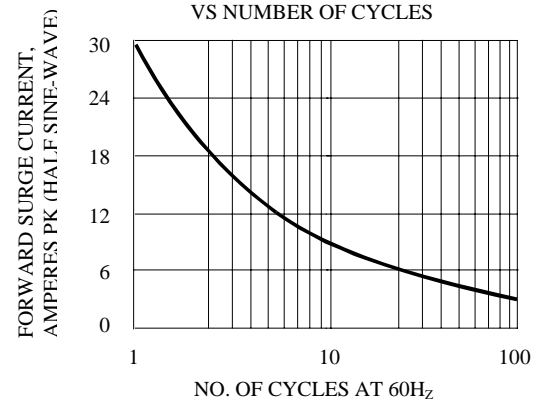


FIG. 6-TYPICAL JUNCTION CAPACITANCE

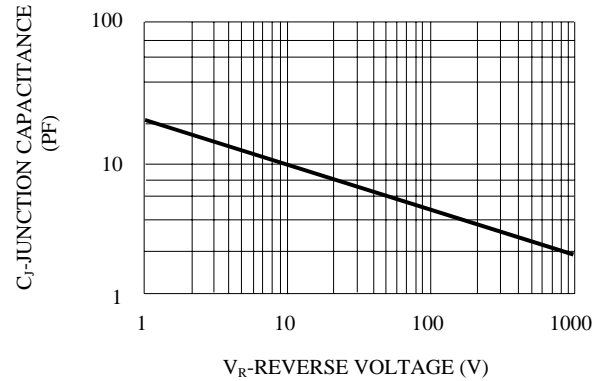


FIG. 7 TYPICAL FORWARD CHARACTERISTICS

