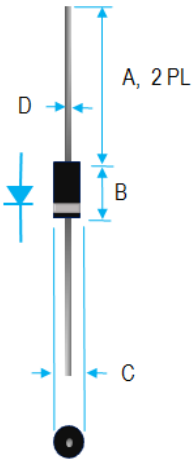
FR05-10 THRU FR05-31 SPECIFICATIONS

Rev. A

FAST RECOVERY HIGH VOLTAGE RECTIFIER



Dim.	Value Inch[mm] Min.	Max.
A	1.000[25.40]	---
B	0.166[4.22]	0.205[5.21]
C	0.080[2.03]	0.107[2.72]
D	0.028[0.71]	0.034[0.86]

PRODUCT FEATURES

1. FLAMMABILITY CLASSIFICATION: 94V-0
2. DESIGNED FOR PHOTO FLASH APPLICATION
3. BEVELED ROUND CHIP, AVALANCHE OPERATION
4. CASE: D0-41 TRANSFER MOLDED
5. DIMENSIONS IN INCHES AND (MILLIMETERS)
6. POLARITY: INDICATED BY CATHODE BAND
7. WEIGHT: 0.34 GRAMS
8. LEADS: SOLDERABILITY PER MIL-STD-202 METHOD 208
9. RoHS

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED STORAGE AND OPERATING TEMPERATURE RANGE -55°C TO +150°C. SINGLE PHASE, HALF WAVE, 60 HZ, RESISTIVE OR INDUCTIVE LOAD. FOR CAPACITIVE LOAD, DERATE CURRENT BY 20%.

RATINGS	SYMBOL	VALUE	UNITS
AVERAGE FORWARD RECTIFIED CURRENT @ L=10mm TA=55°C	I_O	0.5	A
TYPICAL JUNCTION CAPACITANCE(NOTE1)	C_J	15	pF
MAXIMUM REVERSE CURRENT @ 25°C	I_R	5	uA
MAXIMUM REVERSE CURRENT @ 100°C	I_R	50	uA

1. MEASURED @ 1.0 MHZ AND APPLIED REVERSE VOLTAGE OF 4.0 V
2. AVERAGE FORWARD RECTIFIED CURRENT @ L=10mm TA=55°C
3. MAXIMUM FORWARD VOLTAGE AT I_o DC
4. I_{FSM} @ NOM-REPETITIVE PEAK FORWARD SURGE CURRENT, 8.3ms HALF SINE-WAVE

PART NUMBER	MAX RECURRENT PK REV VOLTAGE V_{RRM} (V)	MAX RMS VOLTAGE V_{RMS} (V)	MAX DC BLOCKING VOLTAGE V_{DC} (V)	MAX FWD VOLTAGE V_F (V)
FR05-10	1000	700	1000	2
FR05-15	1500	1050	1500	2
FR05-18	1800	1260	1800	2
FR05-20	2000	1400	2000	3
FR05-31	3100	2170	3100	6

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RATING AND CHARACTERISTIC CURVES

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

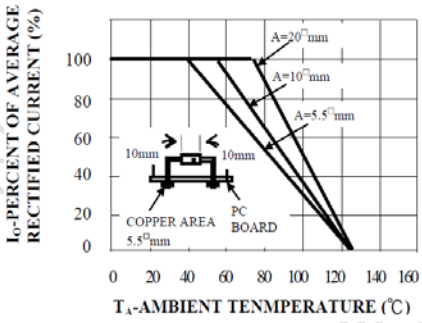

FIG. 2-MAXIMUM CURRENT RATING
CAPACITIVE LOAD,
10mm LEAD LENGTHS

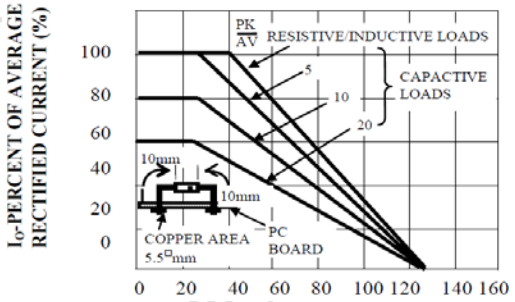

FIG. 3-MAXIMUM CURRENT RATING
EFFECT OF COPPER AREA.
RESISTIVE/INDUCTIVE LOAD

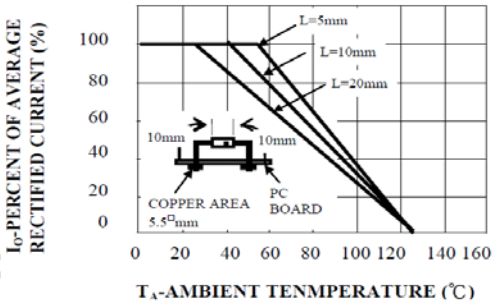

FIG. 4-TYPICAL REVERSE CHARCTERISTICS
AT T_J=25℃

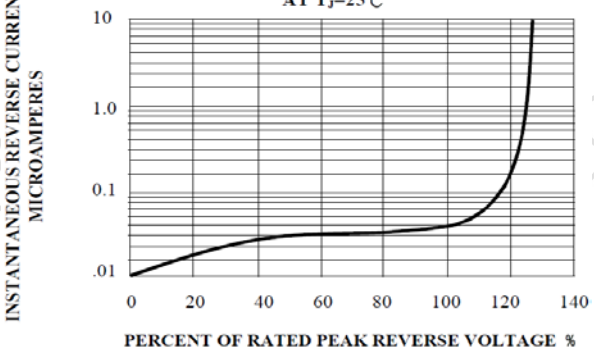

FIG. 5-MAXIMUM FORWARD SURGE
VS NUMBER OF CYCLES

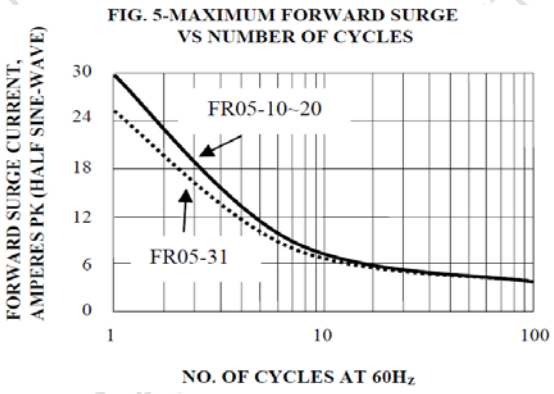

FIG. 6-TYPICAL JUNCTION CAPACITANCE

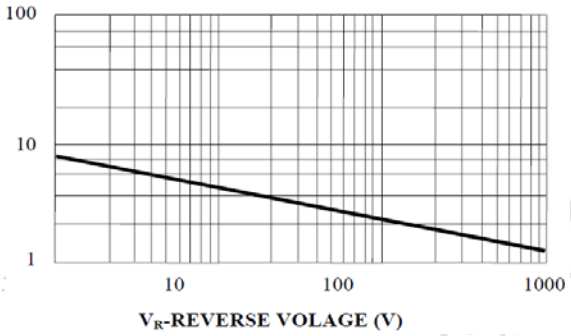
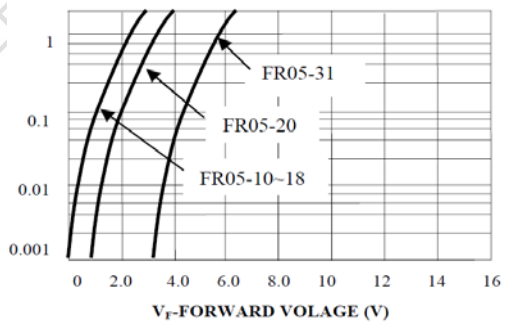
FIG. 7-TYPICAL FORWARD
CHARACTERISTICS