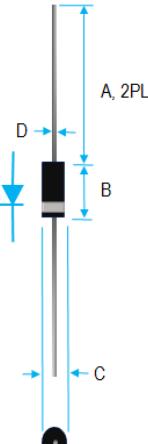


## FAST RECOVERY HIGH VOLTAGE RECTIFIER

	<table border="1"> <thead> <tr> <th colspan="3">Value Inch[mm] DO-41</th> </tr> <tr> <th>Dim.</th> <th>Min.</th> <th>Max.</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>1.000[25.40]</td> <td>---</td> </tr> <tr> <td>B</td> <td>0.166[4.22]</td> <td>0.205[5.21]</td> </tr> <tr> <td>C</td> <td>0.080[2.03]</td> <td>0.107[2.72]</td> </tr> <tr> <td>D</td> <td>0.028[0.71]</td> <td>0.034[0.86]</td> </tr> </tbody> </table>		Value Inch[mm] DO-41			Dim.	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]	<h3>PRODUCT FEATURES</h3> <ol style="list-style-type: none"> <li>1. FLAMMABILITY CLASSIFICATION: 94V-0</li> <li>2. FAST RECOVERY TIMES</li> <li>3. DESIGNED FOR PHOTO FLASH APPLICATION</li> <li>4. BEVELED ROUND CHIP, AVALANCHE OPERATION</li> <li>5. CASE: DO-41/DO-15 TRANSFER MOLDED</li> <li>6. DIMENSIONS IN INCHES AND (MILLIMETERS)</li> <li>7. POLARITY: INDICATED BY CATHODE BAND</li> <li>8. WEIGHT: DO-41 0.34 GRAMS / DO-15 0.40 GRAMS</li> <li>9. LEADS: SOLDERABILITY PER MIL-STD-202 METHOD 208</li> <li>10. RoHS</li> </ol>
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<p>FR02-25 AND FR02-30: DO-41</p> <table border="1"> <thead> <tr> <th colspan="3">Value Inch[mm] DO-15</th> </tr> <tr> <th>Dim.</th> <th>Min.</th> <th>Max.</th> </tr> </thead> <tbody> <tr> <td>A</td> <td>1.000[25.40]</td> <td>---</td> </tr> <tr> <td>B</td> <td>0.230[5.84]</td> <td>0.300[7.62]</td> </tr> <tr> <td>C</td> <td>0.104[2.64]</td> <td>0.140[3.56]</td> </tr> <tr> <td>D</td> <td>0.028[0.71]</td> <td>0.034[0.86]</td> </tr> </tbody> </table> <p>FR02-35 THRU FR02-60: DO-15</p>		Value Inch[mm] DO-15			Dim.	Min.	Max.	A	1.000[25.40]	---	B	0.230[5.84]	0.300[7.62]	C	0.104[2.64]	0.140[3.56]	D	0.028[0.71]	0.034[0.86]		
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MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS RATINGS AT 25°C AMBIENT TEMPERATURE UNLESS OTHERWISE SPECIFIED STORAGE AND OPERATING TEMPERATURE RANGE -65°C TO +125°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 AT L=10mm TA=55°C	$I_O$	0.2	A
MAXIMUM REVERSE CURRENT @ 25°C, VDC	$I_R$	5	uA
MAXIMUM REVERSE RECOVERY TIME	$T_{RR}$	500	nS
NON-REPETITIVE PEAK FORWARD SURGE CURRENT, 8.3ms HALF SINE-WAVE	$I_{FSM}$	25 (FR02-25 to -45) 20 (FR02-50 to -60)	A
TYPICAL JUNCTION CAPACITANCE(NOTE1)	$C_J$	6 (FR02-25 to -40) 4 (FR02-45 to -60)	pF

1:  $I_{FSM}$  @ NOM-REPETITIVE PEAK FORWARD SURGE CURRENT, 8.3ms HALF SINE-WAVE

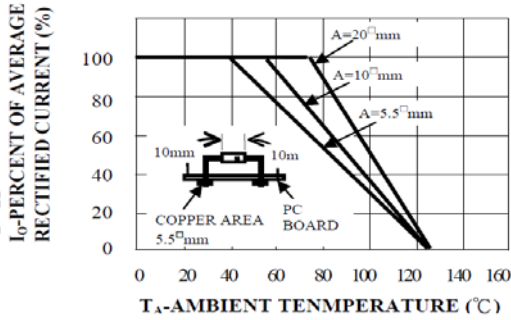
2. MAXIMUM FORWARD VOLTAGE @  $I_O$

3. DO-41 FOR FR02-25 THRU FR02-30, DO-15 FOR FR02-35 THRU FR02-60

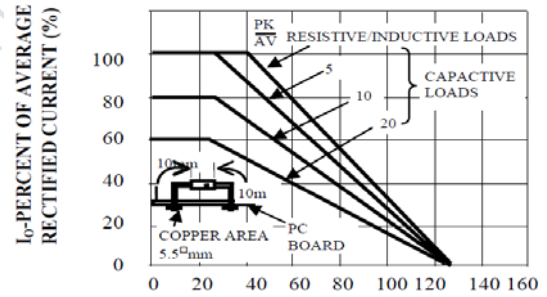
PART NUMBER	MAX RECURRENT PK REV VOLTAGE $V_{RRM}$ (V)	MAX RMS VOLTAGE $V_{RMS}$ (V)	MAX DC BLOCKING VOLTAGE $V_{DC}$ (V)	MAX FWD VOLTAGE $V_F$ (V)
FR02-25	2500	1750	2500	6
FR02-30	3000	2100	3000	6
FR02-35	3500	2450	3500	8
FR02-40	4000	2800	4000	8
FR02-45	4500	3150	4500	12
FR02-50	5000	3500	5000	12
FR02-60	6000	4200	6000	12

## RATING AND CHARACTERISTIC CURVES

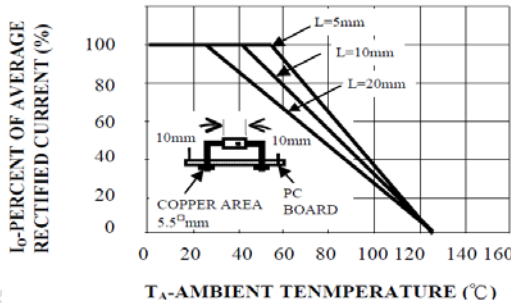
**FIG. 1-MAXIMUM CURRENT RATING  
EFFECT OF COPPER AREA.  
RESISTIVE/INDUCTIVE LOAD**



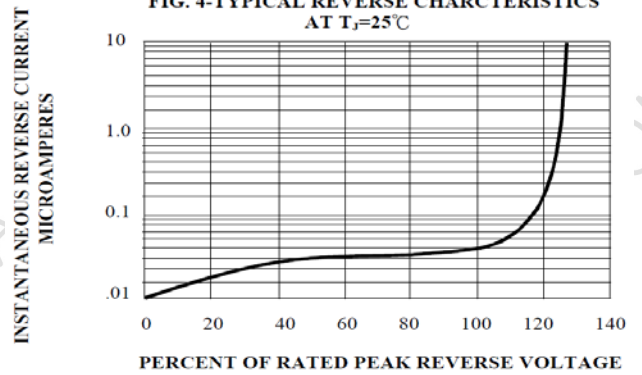
**FIG. 2-MAXIMUM CURRENT RATING  
CAPACITIVE LOAD,  
10mm LEAD LENGTHS**



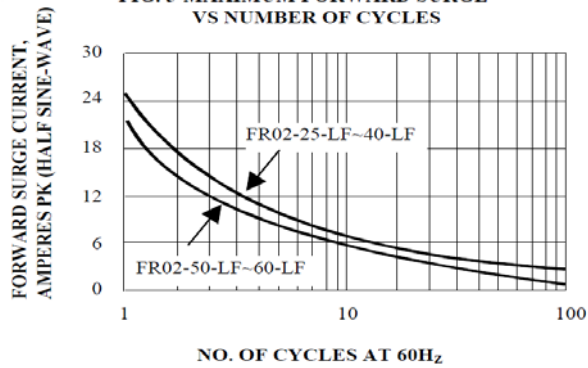
**FIG. 3-MAXIMUM CURRENT RATING  
EFFECT OF COPPER AREA.  
RESISTIVE/INDUCTIVE LOAD**



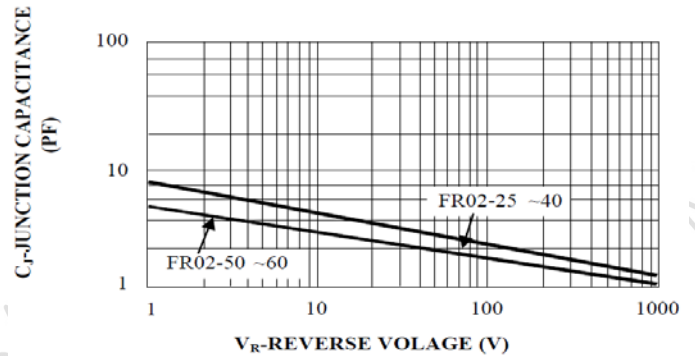
**FIG. 4-TYPICAL REVERSE CHARACTERISTICS  
AT T\_J=25°C**



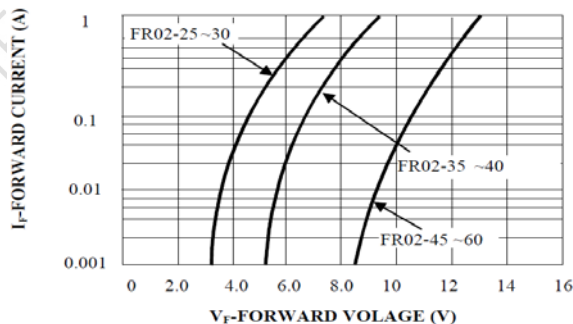
**FIG. 5-MAXIMUM FORWARD SURGE  
VS NUMBER OF CYCLES**



**FIG. 6-TYPICAL JUNCTION CAPACITANCE**



**FIG. 7-TYPICAL FORWARD  
CHARACTERISTICS**





# FR02-25 THRU FR02-60 SPECIFICATIONS

Rev. A

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