

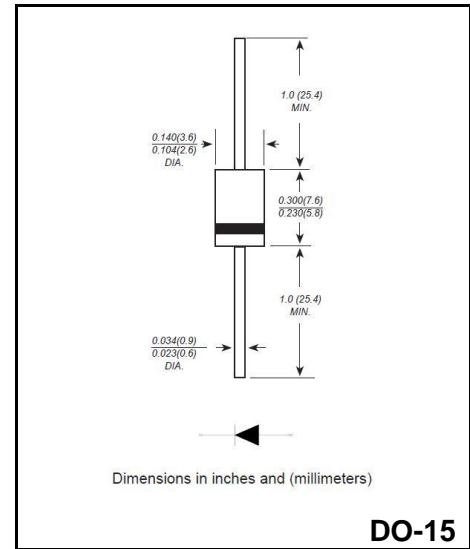
**Fast Recovery Silicon Rectifiers**

**Reverse Voltage - 100 to 1000 V**

**Forward Current – 2.5 A**

**FEATURES**

- ◆ For surface mounted applications
- ◆ Low profile package
- ◆ Open Junction chip
- ◆ Ideal for automated placement
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives



**MECHANICAL DATA**

- ◆ Case: DO-15
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 0.33g / 0.0116oz

**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 current derate by 20 %.

Parameter	Symbols	FR252	FR253	FR254	FR255	FR256	FR257	Units
Maximum Repetitive Peak Reverse Voltage	$V_{RRM}$	100	200	400	600	800	1000	V
Maximum RMS voltage	$V_{RMS}$	70	140	280	420	560	700	V
Maximum DC Blocking Voltage	$V_{DC}$	100	200	400	600	800	1000	V
Maximum Average Forward Rectified Current at $T_c = 100\text{ }^\circ\text{C}$	$I_{F(AV)}$	2.5						A
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	$I_{FSM}$	100.0						A
Maximum Instantaneous Forward Voltage at 2.5A	$V_F$	1.28						V
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 125\text{ }^\circ\text{C}$	$I_R$	10 500						$\mu\text{A}$
Maximum reverse recovery time <sup>(Note 1)</sup>	$T_{rr}$	150		250		500		nS
Typical Junction Capacitance <sup>(Note 2)</sup>	$C_j$	40.0						pF
Typical Thermal Resistance	$R_{\theta JA}$	75.0						$^\circ\text{C/W}$
Operating and Storage Temperature Range	$T_j, T_{stg}$	-55 ~ +150						$^\circ\text{C}$

(1) Measured at 1 MHz and applied reverse voltage of 4 V D.C

(2) Reverse recovery time test condition:  $I_F=0.5\text{A}$   $I_R=1.0\text{A}$   $I_{rr}=0.25\text{A}$

**Ratings And Characteristic Curves**

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

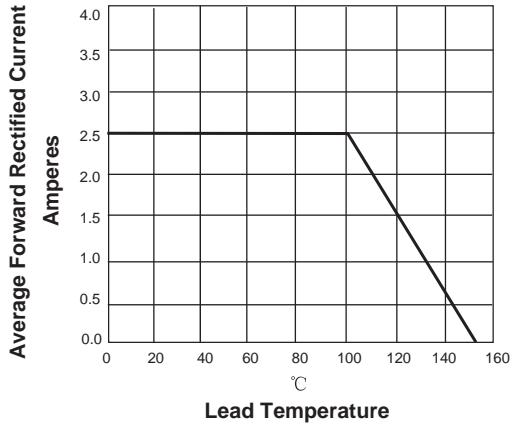


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

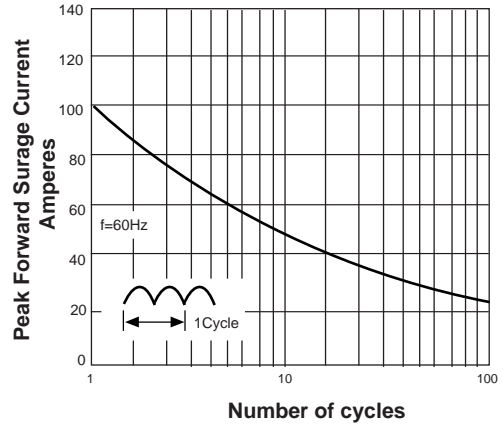


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

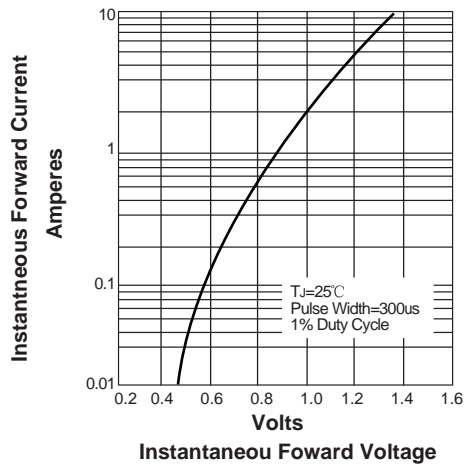
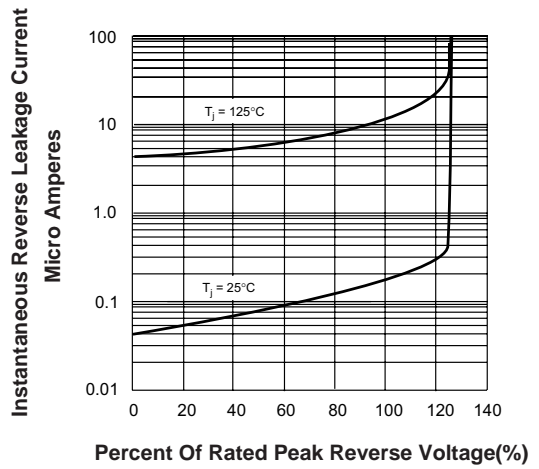
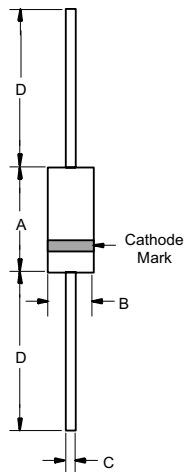


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



**Package Outline DO-15**



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.230	.300	5.8	7.6	
B	.104	.140	2.6	3.6	
C	.028	.034	0.71	0.86	
D	1.000	---	25.40	---	

**Summary of Packing Options**

Package	Packing Description	Packing Quantity	Industry Standard
DO-15	BOX	500/3000	EIA-481-1