Fast Recovery Silicon Rectifiers

Reverse Voltage - 100 to 1000 V
Forward Current – 2.5 A

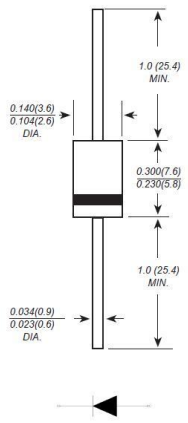
lead-free ROHS

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



Dimensions in inches and (millimeters)

DO-15

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 °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 °C at Rated DC Blocking Voltage T_a=125 °C	I_R	10 500						μA
Maxinum reverse recovery time(Note 1)	Trr	150			250	500		nS
Typical Junction Capacitance(Note 2)	C_j	40.0						pF
Typical Thermal Resistance	$R_{\theta JA}$	75.0						°C/W
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150						°C

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

（2）Reverse recovery time test condition: IF=0.5A IR=1.0A Irr=0.25A

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Ratings And Characteristic Curves

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

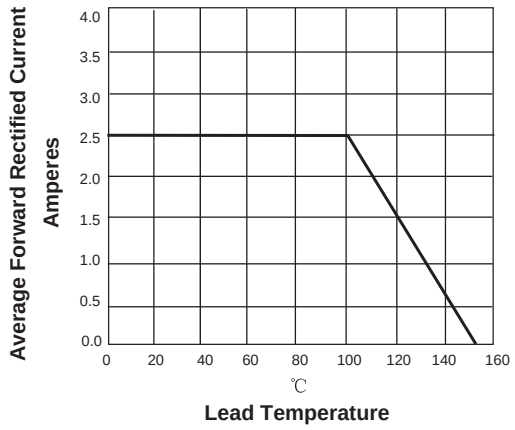


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PERLEG

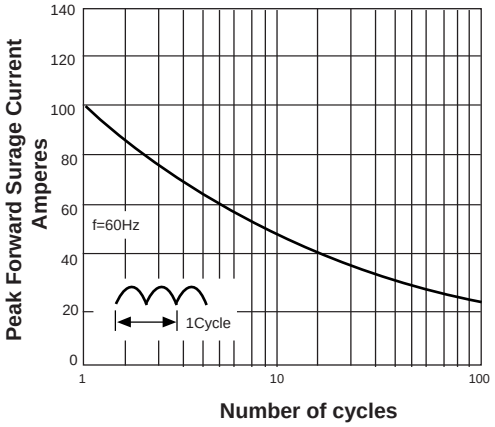


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

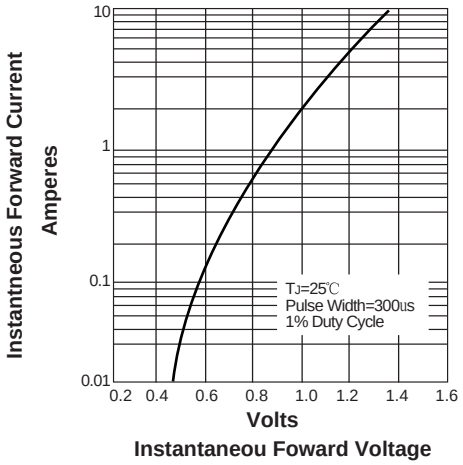
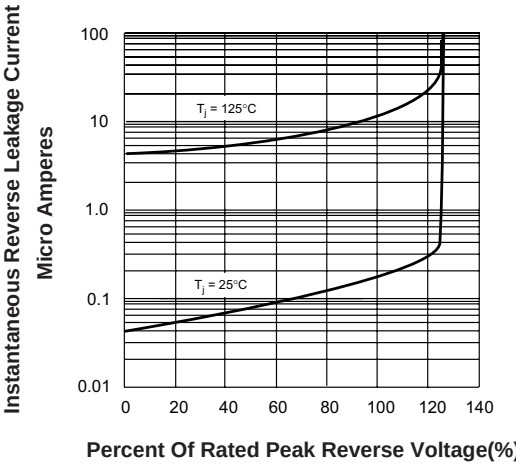


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



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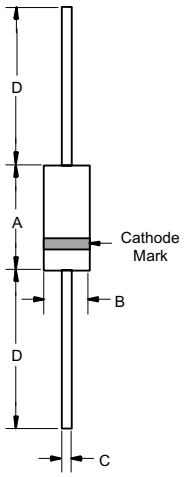
Package Outline DO-15



DIMENSIONS					
	INCHES		MM		
DIM	MIN	MAX	MIN	MAX	NOTE
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

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