

Fast Recovery Silicon Rectifiers

Reverse Voltage - 100 to 1000 V

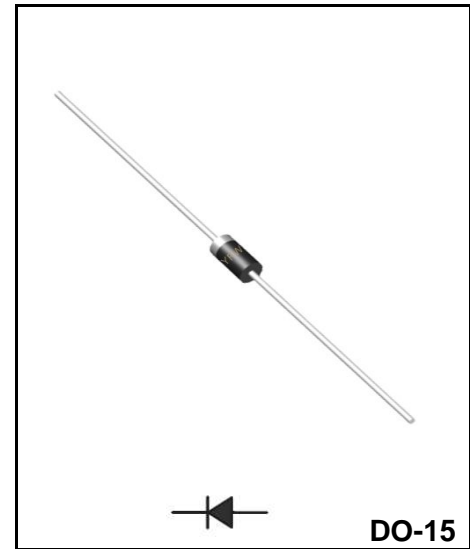
Forward Current – 2.5 A

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						μA
Maximum reverse recovery time ^(Note 1)	T_{rr}	150			250	500		nS
Typical Junction Capacitance ^(Note 2)	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: $I_F=0.5\text{A}$ $I_R=1.0\text{A}$ $I_{rr}=0.25\text{A}$

FIG. 1- DERATING CURVE OUTPUT RECTIFIED CURRENT

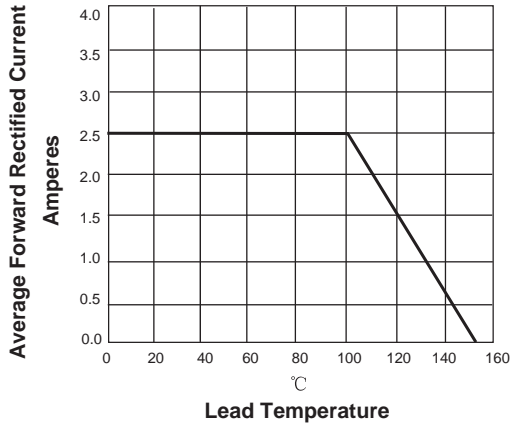


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT PER LEG

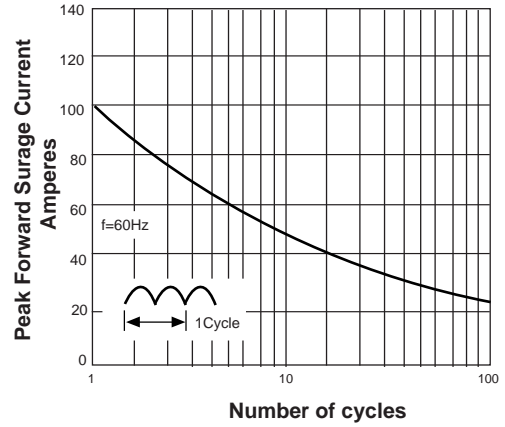


FIG. 3-TYPICAL FORWARD VOLTAGE CHARACTERISTICS

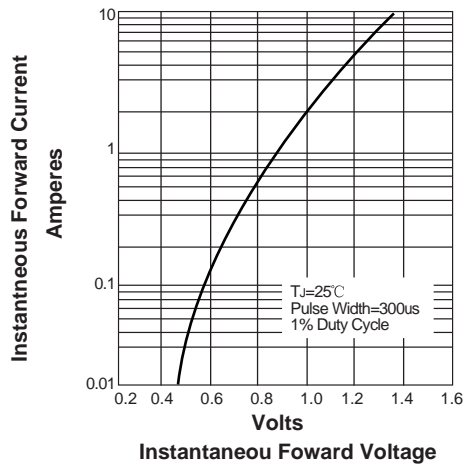
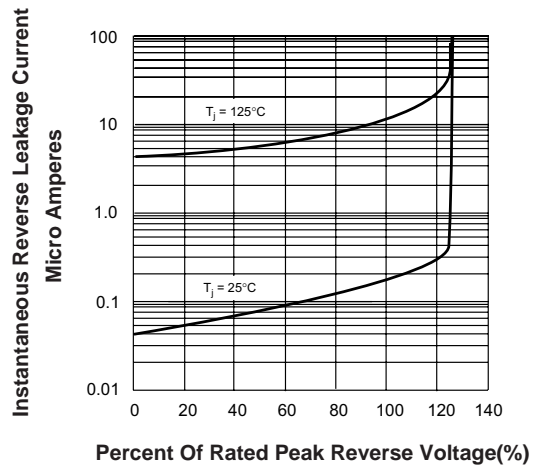


FIG. 4-TYPICAL REVERSE LEAKAGE CHARACTERISTICS



Ordering information

Package	Packing Description	Packing Quantity
DO-15	bulk	500PCS/Inner Box 30000PCS/Carton
	ammo pack	3000PCS/Inner Box 30000PCS/Carton

Package Dimensions

DO-15

Dim.	Millimeter(mm)		INCHES	
	Min.	Max.	Min.	Max.
A	5.80	7.60	0.230	0.300
B	2.60	3.60	0.104	0.140
C	0.71	0.86	0.028	0.034
D	25.4	-	1.00	-

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