

0.5/0.2Amp High Voltage Rectifier

Reverse Voltage - 1200 to 5000 V

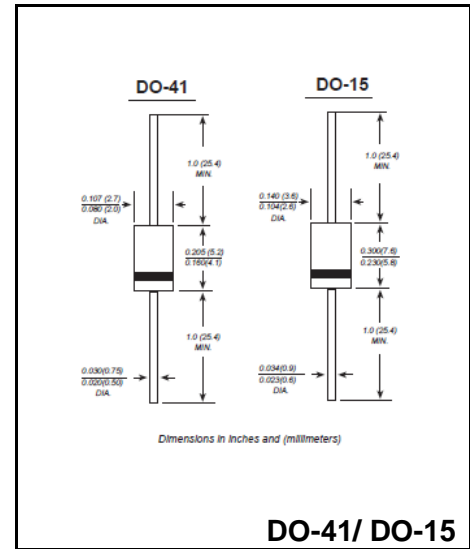
Forward Current – 0.5/0.2A

FEATURES

- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low profile package
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C/10 seconds, 0.375"(9.5mm) lead length, 5 lbs. (2.3kg) tension
- ◆ Lead free in comply with EU RoHS 2011/65/EU directives

MECHANICAL DATA

- ◆ Case: DO-41/DO-15
- ◆ Terminals: Solderable per MIL-STD-750, Method 2026
- ◆ Approx. Weight: 0.33g / 0.012oz(DO-41)
- ◆ Approx. Weight: 0.40g / 0.014oz(DO-15)



Absolute Maximum Ratings and 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	R1200	R1500	R1800	R2000	R2500	R3000	R3500	R4000	R5000	Units	
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1200	1500	1800	2000	2500	3000	3500	4000	5000	V	
Maximum RMS voltage	V_{RMS}	840	1050	1260	1400	1750	2100	3450	2800	3500	V	
Maximum DC Blocking Voltage	V_{DC}	1200	1500	1800	2000	2500	3000	3500	4000	5000	V	
Maximum Average Forward Rectified Current at $T_C = 125\text{ }^\circ\text{C}$	$I_{F(AV)}$	0.5			0.2					A		
Peak Forward Surge Current 8.3 ms Single Half Sine Wave Superimposed on Rated Load	I_{FSM}	30.0									A	
Maximum Instantaneous Forward Voltage at 0.5 A	V_F	2.0		3.0		4.0		5.0		V		
Maximum DC Reverse Current $T_a = 25\text{ }^\circ\text{C}$ at Rated DC Blocking Voltage $T_a = 100\text{ }^\circ\text{C}$	I_R	10.0					200.0					μA
Typical Junction Capacitance ⁽¹⁾	C_j	15.0										pF
Typical Thermal Resistance ⁽²⁾	$R_{\theta JA}$	50.0										$^\circ\text{C/W}$
Operating and Storage Temperature Range	T_j, T_{stg}	-55 ~ +150									$^\circ\text{C}$	

(1) Measured at 1MHz and applied reverse voltage of 4.0V D.C.

(2) Thermal resistance from junction to ambient at 0.375"(9.5mm)lead length,P.C.B. mounted

Ratings And Characteristic Curves

R1200 THRU R5000

FIG. 1- FORWARD CURRENT DERATING CURVE

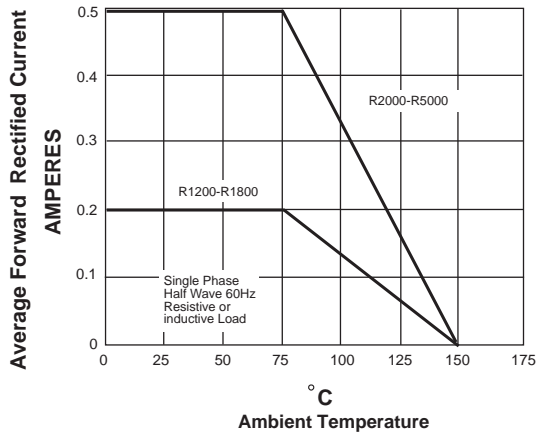


FIG. 2-MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

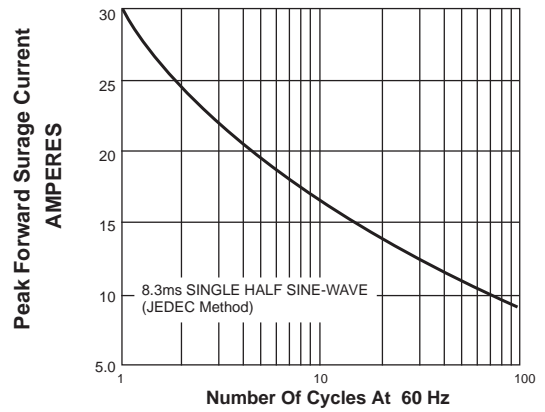
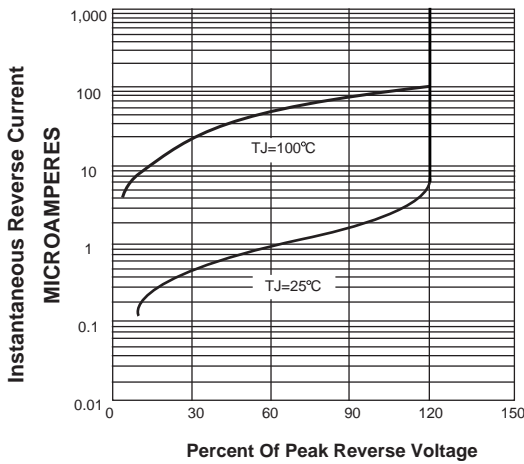
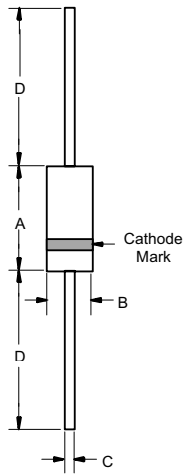


FIG. 3-TYPICAL REVERSE CHARACTERISTICS

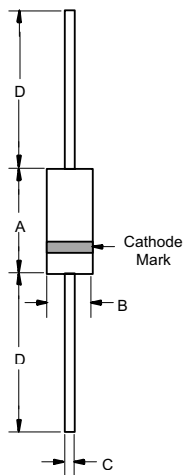


Package Outline DO-41



DIMENSIONS					
DIM	INCHES		MM		NOTE
	MIN	MAX	MIN	MAX	
A	.166	.205	4.10	5.20	
B	.080	.107	2.00	2.70	
C	.028	.034	.70	.90	
D	1.000	---	25.40	---	

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-41	BOX	1000/5000	EIA-481-1
Package	Packing Description	Packing Quantity	Industry Standard
DO-15	BOX	500/3000	EIA-481-1