SEP ELECTRONIC CORP.

R1200 thru R5000

500 mA& 200 mA High Voltage Silicon Rectifier

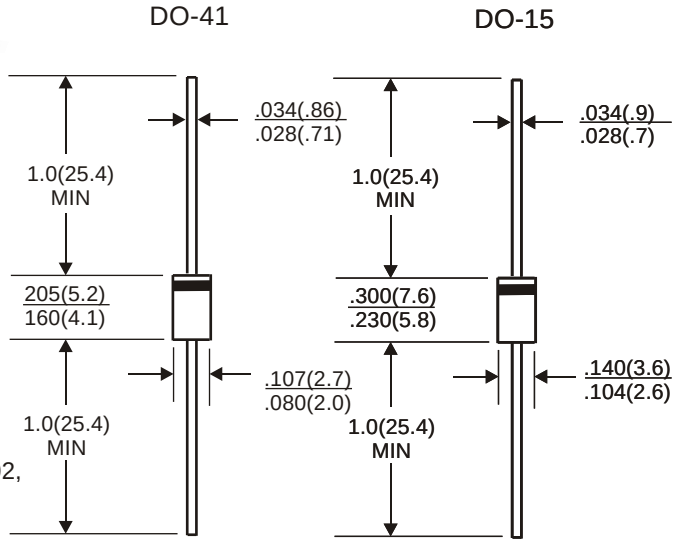
Rectifier Reverse Voltage 1200 to 5000V

Features

- Avalanche operation
- Low Forward Voltage Drop
- Low reverse leakage current
- Plastic material has UL flammability classification 94V-0

Mechanical Data

Case: Molded plastic
Terminals: Solder plated solderable per MIL-STD-202, Method 208
Polarity: Cathode band
Mounting Position: Any
Weight: 0.3 grams (approx) for DO-41 package
0.4 grams (approx) for DO-15 package



All dimensions inches and (millimeters)

Maximum Ratings & Thermal Characteristics

Rating at 25°C ambient temperature unless otherwise specified, Resistive or Inductive load, 60 Hz.
For Capacitive load derate current by 20%.

Parameter	Symbol	R1200	R1500	R1800	R2000	R2500	R3000	R4000	R5000	unit
Maximum repetitive peak reverse voltage	V_{RRM}	1200	1500	1800	2000	2500	3000	4000	5000	V
Maximum RMS bridge input voltage	V_{RMS}	840	1050	1260	1400	1750	2100	2800	3500	V
Maximum DC blocking voltage	V_{DC}	1200	1500	1800	2000	2500	3000	4000	5000	V
Maximum average forward rectified output current at T_A=55°C	$I_{F(AV)}$	500				200				mA
Peak forward surge current single sine-wave superimposed on rated load (JEDEC Method)	I_{FSM}	30.0								A
Typical thermal resistance per element	$R_{\theta JA}$	50								°C/W
Typical junction capacitance per element	C_j	9								pF
Operating junction and storage temperature range	T_J, T_{STG}	-55 to + 150								°C

Electrical Characteristics

Rating at 25°C ambient temperature unless otherwise specified. Resistive or Inductive load, 60Hz.
For Capacitive load derate by 20 %.

Parameter	Symbol	R1200	R1500	R1800	R2000	R2500	R3000	R4000	R5000	Unit
Maximum instantaneous forward voltage drop per leg at I_F DC	V_F	2.0				4.5				V
Maximum DC reverse current at rated T_A =25°C DC blocking voltage per element T_A =100°C	I_R	5.0 50.0								μA

Rating and Characteristic Curves (TA = 25°C Unless otherwise noted)
R1200 thru R5000

Fig. 1 Derating Curve for Output Rectified Current

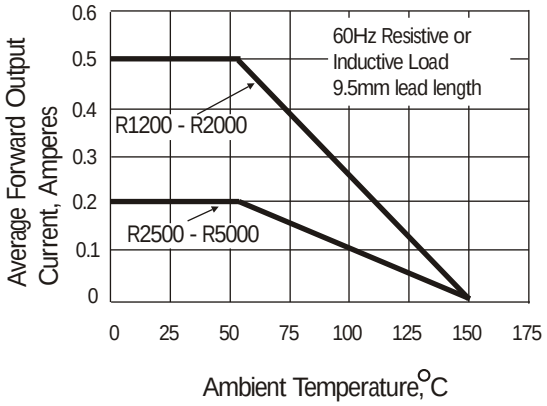


Fig. 2 Peak Forward Surge Current

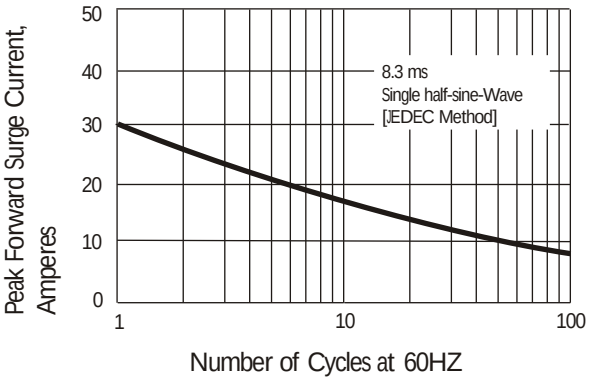


Fig. 3 Typical Instantaneous Forward Characteristics

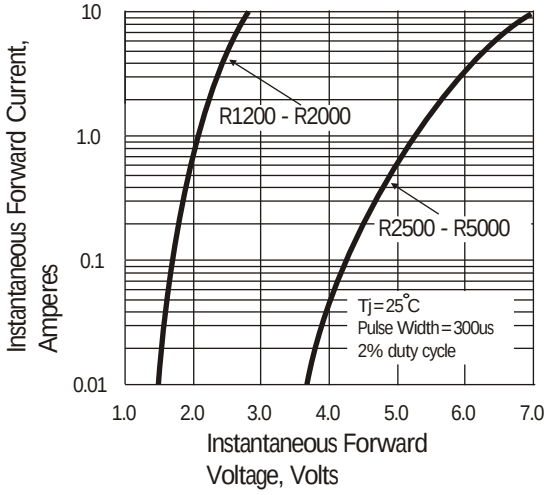


Fig. 4 Typical Reverse Characteristics