EIC ®

ISO 9001 ISO 14001

Certificate Number: Q14561   Certificate Number: 517276

HVR112 - HVR120

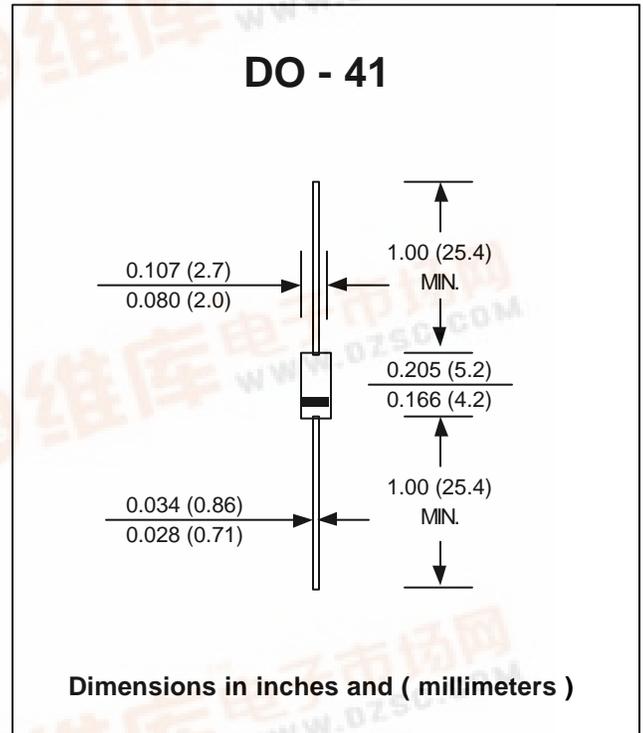## HIGH VOLTAGE RECTIFIER DIODES

PRV : 1200 - 2000 Volts

Io : 1.0 Ampere

FEATURES :
* High current capability
* High surge current capability
* High reliability
* Low reverse current
* Low forward voltage drop

MECHANICAL DATA :
* Case : DO-41 Molded plastic
* Epoxy : UL94V-O rate flame retardant
* Lead : Axial lead solderable per MIL-STD-202, Method 208 guaranteed
* Polarity : Color band denotes cathode end
* Mounting position : Any
* Weight : 0.339 gram

DO - 41

0.107 (2.7) / 0.080 (2.0)

1.00 (25.4) MIN.

0.205 (5.2) / 0.166 (4.2)

0.034 (0.86) / 0.028 (0.71)

1.00 (25.4) MIN.

Dimensions in inches and (millimeters)

MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.
Single phase, half wave, 60 Hz, resistive or inductive load.
For capacitive load, derate current by 20%.

| RATING	SYMBOL	HVR112	HVR114	HVR116	HVR118	HVR120	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1200	1400	1600	1800	2000	Volts
Maximum RMS Voltage	V_{RMS}	840	980	1120	1260	1400	Volts
Maximum DC Blocking Voltage	V_{DC}	1200	1400	1600	1800	2000	Volts
Maximum Average Forward Current Ta = 75°C	$I_{F(AV)}$	1.0					Amp.
Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	30					Amps.
Maximum Peak Forward Voltage at IF = 1.0 Amp.	V_F	2.2					Volts
Maximum DC Reverse Current Ta = 25°C	I_R	5.0					µA
at Rated DC Blocking Voltage Ta = 100°C	$I_{R(H)}$	100					µA
Typical Junction Capacitance (Note 1)	C_j	36					pF
Typical Thermal Resistance (Note 2)	$R\theta JA$	26					°C/W
Junction Temperature Range	T_J	- 40 to + 150					°C
Storage Temperature Range	T_{STG}	- 40 to + 150					°C

Notes : (1) Measured at 1.0 MHz and applied reverse voltage of 4.0VDC
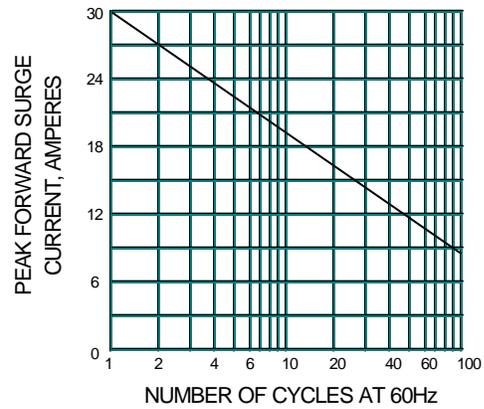(2) Thermal resistance from Junction to Ambient at 0.375" (9.5mm) Lead Lengths, P.C. Board Mounted.
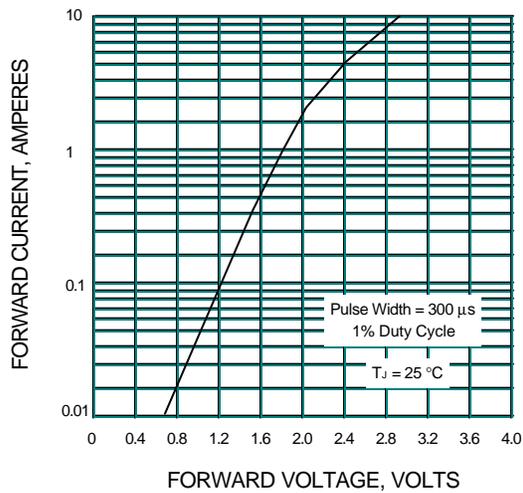
RATING AND CHARACTERISTIC CURVES (HVR112 - HVR120)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

AVERAGE FORWARD OUTPUT CURRENT, AMPERES

AMBIENT TEMPERATURE, (°C)
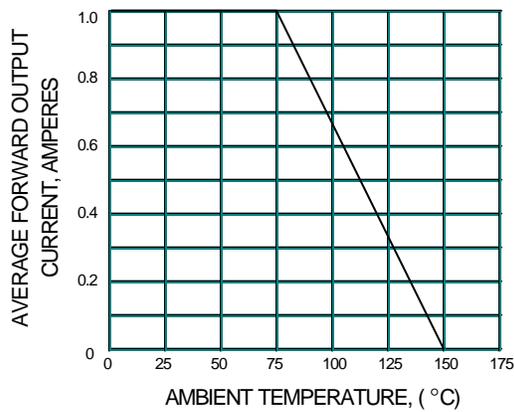
FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

PEAK FORWARD SURGE CURRENT, AMPERES

NUMBER OF CYCLES AT 60Hz

FIG.3 - TYPICAL FORWARD CHARACTERISTICS

FORWARD CURRENT, AMPERES

Pulse Width = 300 μs
1% Duty Cycle

T_J = 25 °C

FORWARD VOLTAGE, VOLTS

FIG.4 - TYPICAL REVERSE CHARACTERISTICS

REVERSE CURRENT, MICROAMPERES

T_J = 100 °C

T_J = 25 °C

PERCENT OF RATED REVERSE VOLTAGE, (%)