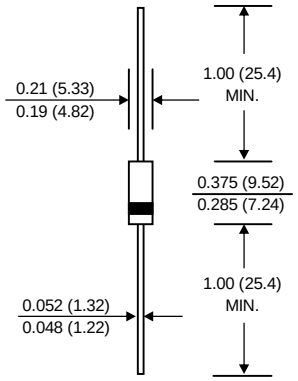
HVR512 - HVR520

HIGH VOLTAGE RECTIFIER DIODES

PRV : 1200 - 2000 Volts
Io : 5.0 Amperes

DO-201AD



Dimensions in inches and (millimeters)

FEATURES :
* High current capability
* High surge current capability
* High reliability
* Low reverse current
* Low forward voltage drop
* Pb / RoHS Free

MECHANICAL DATA :
* Case : DO-201AD 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 : 1.16 grams

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	HVR512	HVR514	HVR516	HVR518	HVR520	UNIT
Maximum Repetitive Peak Reverse Voltage	V_{RRM}	1200	1400	1600	1800	2000	V
Maximum RMS Voltage	V_{RMS}	840	980	1120	1260	1400	V
Maximum DC Blocking Voltage	V_{DC}	1200	1400	1600	1800	2000	V
Maximum Average Forward Current Ta = 50°C	$I_{F(AV)}$	5.0					A
Maximum Peak Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load (JEDEC Method)	I_{FSM}	200					A
Maximum Peak Forward Voltage at I_F = 5.0 A	V_F	2.2					V
Maximum DC Reverse Current Ta = 25°C	I_R	10					µA
at Rated DC Blocking Voltage Ta = 100°C	$I_{R(H)}$	100					µA
Typical Junction Capacitance (Note 1)	Cj	36					pF
Typical Thermal Resistance (Note 2)	RθJA	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 4.0V_{DC}

(2) Thermal resistance from Junction to Ambient at 0.375" (9.5mm) Lead Lengths, P.C. Board Mounted.

RATING AND CHARACTERISTIC CURVES (HVR512 - HVR520)

FIG.1 - DERATING CURVE FOR OUTPUT RECTIFIED CURRENT

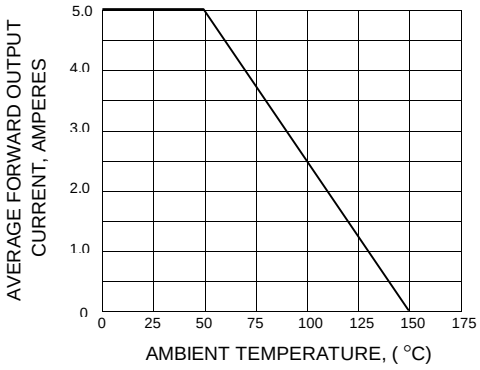


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

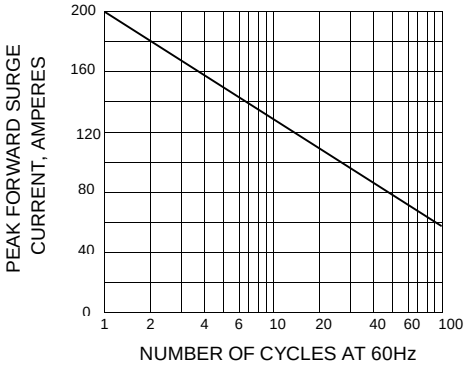


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

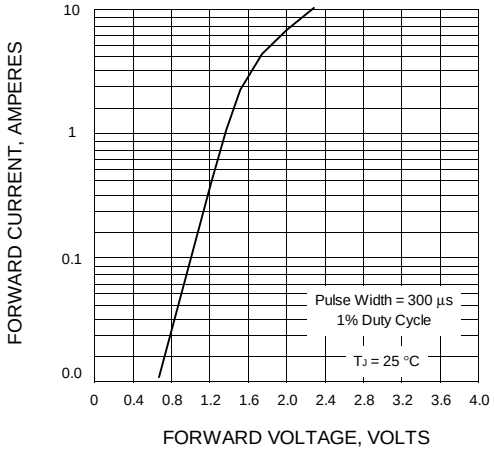


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

