

1N5415 - 1N5420

FAST RECOVERY RECTIFIERS

PRV : 50 - 600 Volts

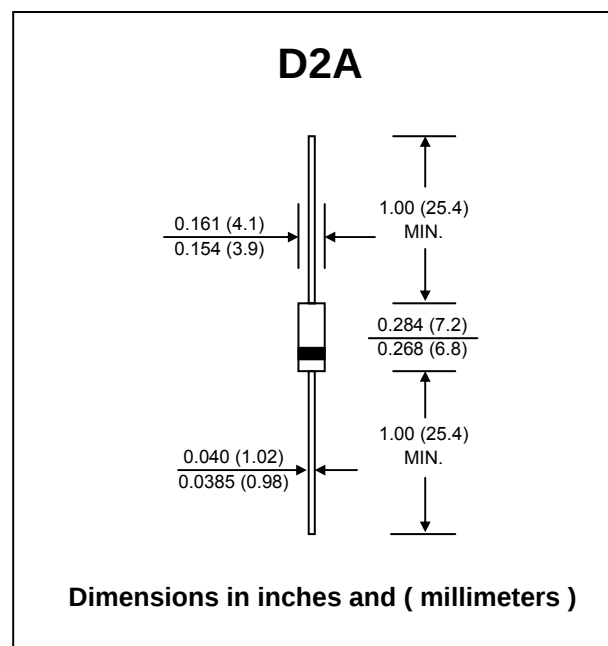
I_o : 3.0 Amperes

FEATURES :

- * Glass Passivated Junction Chip
- * High surge current capability
- * High reliability
- * Low reverse current
- * Low forward voltage drop
- * Fast recovery time
- * **Pb / RoHS Free**

MECHANICAL DATA :

- * Case : D2A 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 : 0.645 gram



MAXIMUM RATINGS AND ELECTRICAL CHARACTERISTICS

Rating at 25 °C ambient temperature unless otherwise specified.

RATING		SYMBOL	1N5415	1N5416	1N5417	1N5418	1N5419	1N5420	UNIT
Maximum Working Peak Reverse Voltage		V _{RWM}	50	100	200	400	500	600	V
Minimum Breakdown Voltage @ 50μA		V _{BR(Min)}	55	110	220	440	550	660	V
Maximum Average Forward Current at Ta = 55 °C		I _{F(AV)}	3.0						A
Maximum Forward Surge Current 8.3ms Single half sine wave Superimposed on rated load		I _{FSM}	80						A
Maximun Forward Voltage	at I _F = 3.0 A	V _F	1.10						V
	at I _F = 9.0 A		1.50						
Maximum Reverse Current at V _{RWM} Ta = 25 °C Ta = 100 °C		I _R	1.0						μA
		I _{R(H)}	20						
Maximum Reverse Recovery Time ⁽¹⁾		T _{rr}	150				250	400	ns
Thermal Resistance, Junction to Lead ⁽²⁾		R _{ΘJL}	20						°C/W
Junction Temperature Range		T _J	- 65 to + 175						°C
Storage Temperature Range		T _{STG}	- 65 to + 175						°C

Notes :

(1) Reverse Recovery Test Conditions : I_F = 0.5A, I_{RM} = 1A, I_{R(REC)} = 0.25 A .

(2) At 3/8 inch (10 mm) lead length from body.

RATING AND CHARACTERISTIC CURVES (1N5415 - 1N5420)

FIG. 1 - FORWARD CURRENT DERATING CURVE

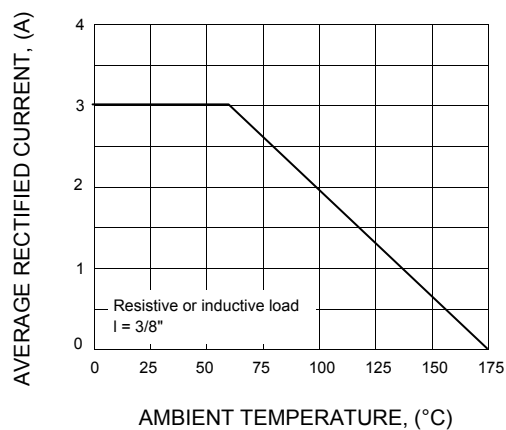


FIG.2 - MAXIMUM NON-REPETITIVE PEAK FORWARD SURGE CURRENT

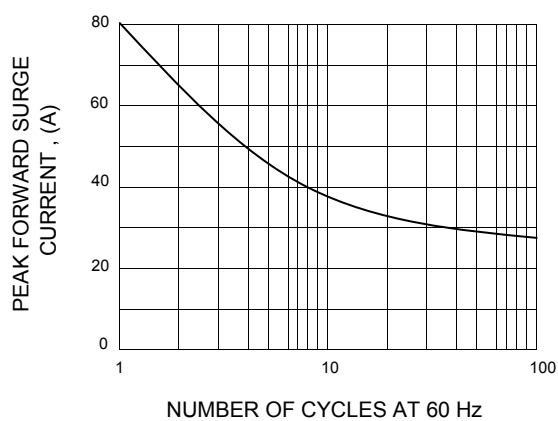


FIG.3 - TYPICAL FORWARD CHARACTERISTICS

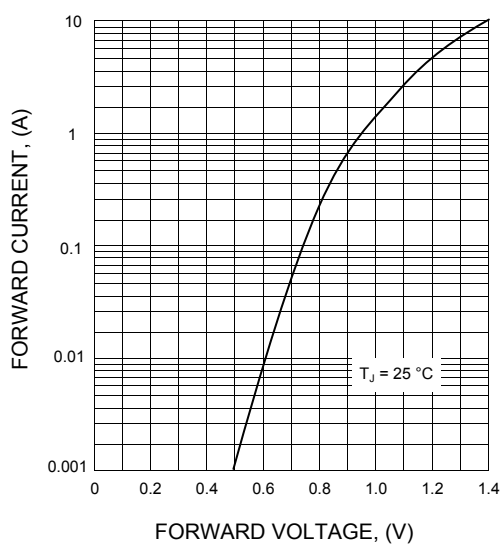


FIG.4 - TYPICAL REVERSE CHARACTERISTICS

