



Microsemi

SCOTTSDALE DIVISION

1N6620 thru 1N6625

VOIDLESS-HERMETICALLY SEALED
ULTRA FAST RECOVERY GLASS
RECTIFIERS

ELECTRICAL CHARACTERISTICS @ 25°C

TYPE NUMBER	MINIMUM BREAK-DOWN VOLTAGE V_R $I_R = 50\mu A$	MAXIMUM FORWARD VOLTAGE V_F @ I_F	WORKING PEAK REVERSE VOLTAGE V_{RWM}	MAXIMUM REVERSE CURRENT I_R @ V_{RWM}		MAXIMUM REVERSE RECOVERY TIME (LOW CURRENT) t_{rr} Note 1	MAXIMUM REVERSE RECOVERY TIME (HIGH CURRENT) t_{rr} Note 2	PEAK RECOVERY CURRENT I_{RM} (rec) $I_F = 2A$, $100A/\mu s$ Note 2	FORWARD RECOVERY VOLTAGE V_{FRM} Max $I_F = 0.5A$ $t_{fr} = 12ns$	
				$T_A=25^\circ C$	$T_A=150^\circ C$					
1N6620	220	1.40V @ 1.2A	1.60V @ 2.0A	200	0.5	150	30	45	3.5	12
1N6621	440	1.40V @ 1.2A	1.60V @ 2.0A	400	0.5	150	30	45	3.5	12
1N6622	660	1.40V @ 1.2A	1.60V @ 2.0A	600	0.5	150	30	45	3.5	12
1N6623	880	1.55V @ 1.0A	1.80V @ 1.5A	800	0.5	150	50	60	4.2	18
1N6624	990	1.55V @ 1.0A	1.80V @ 1.5A	900	0.5	150	50	60	4.2	18
1N6625	1100	1.75V @ 1.0A	1.95V @ 1.5A	1000	1.0	200	60	80	5.0	30

NOTE 1: Low Current Reverse Recovery Time Test Conditions: $I_F=0.5A$, $I_{RM}=1.0A$, $I_{R(REC)}=0.25A$ per MIL-STD-750, Method 4031, Condition B.

NOTE 2: High Current Reverse Recovery Time Test Conditions: $I_F = 2 A$, $di/dt=100 A/\mu s$ MIL-STD-750, Method 4031, Condition D.

SYMBOLS & DEFINITIONS

Symbol	Definition
V_{BR}	Minimum Breakdown Voltage: The minimum voltage the device will exhibit at a specified current.
V_{RWM}	Working Peak Reverse Voltage: The maximum peak voltage that can be applied over the operating temperature range.
V_F	Maximum Forward Voltage: The maximum forward voltage the device will exhibit at a specified current.
I_R	Maximum Reverse Current: The maximum reverse (leakage) current that will flow at the specified voltage and temperature.
C	Capacitance: The capacitance of the TVS as defined @ 0 volts at a frequency of 1 MHz and stated in picofarads.
t_{rr}	Reverse Recovery Time: The time interval between the instant the current passes through zero when changing from the forward direction to the reverse direction and a specified recovery decay point after a peak reverse current is reached.

CHARTS AND GRAPHS

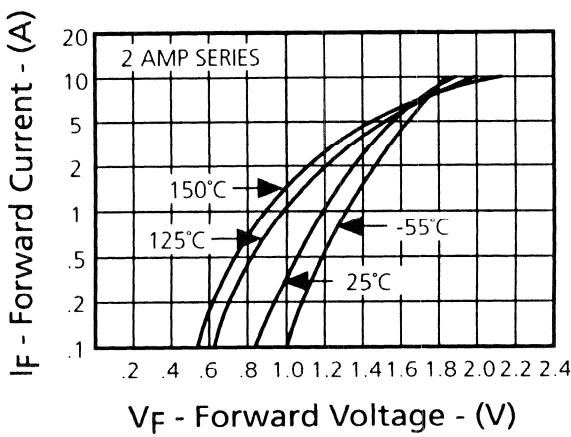


FIGURE 1
Typical Forward Current
vs
Forward Voltage

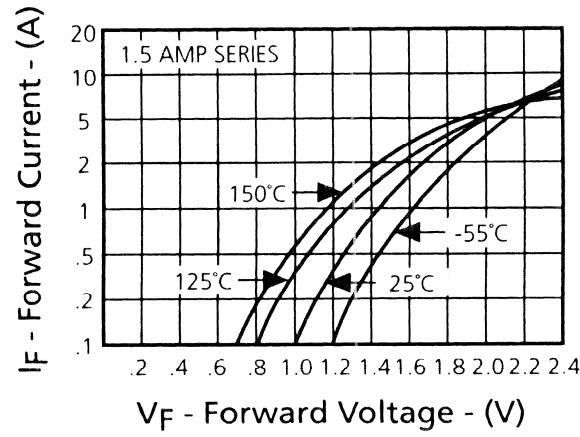


FIGURE 2
Typical Forward Current
vs
Forward Voltage



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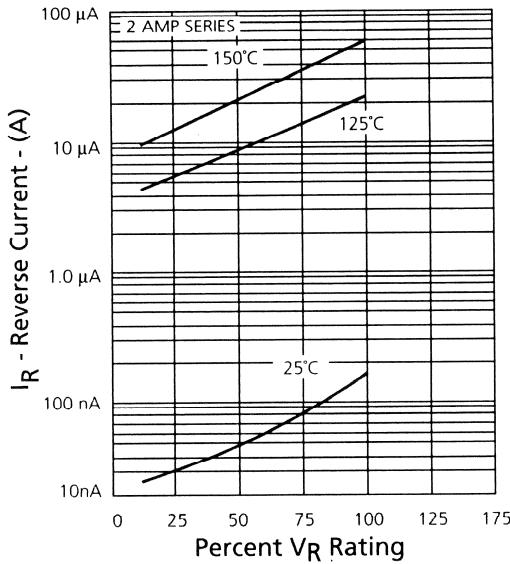


FIGURE 3
Typical Reverse Current vs.
Applied Reverse Voltage

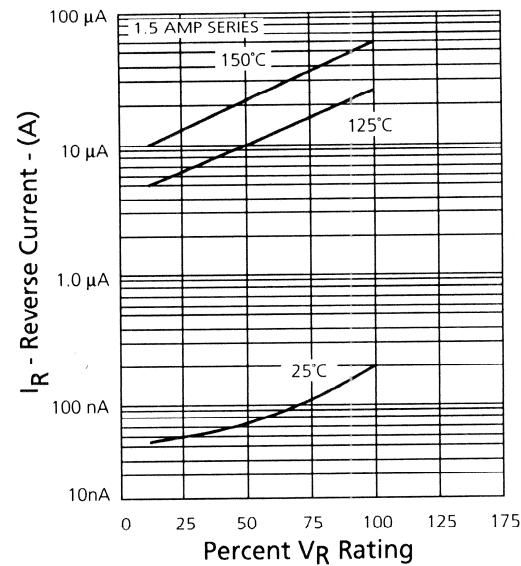


FIGURE 4
Typical Reverse Current vs.
Applied Reverse Voltage

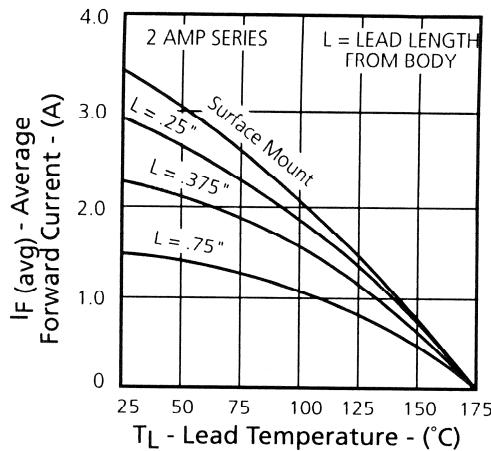


FIGURE 5
Average Forward Current vs.
Lead Temperature (50% Duty Cycle, Square Wave)

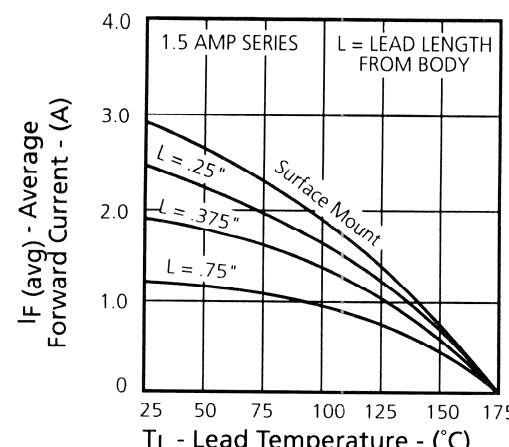


FIGURE 6
Average Forward Current vs.
Lead Temperature (50% Duty Cycle, Square Wave)



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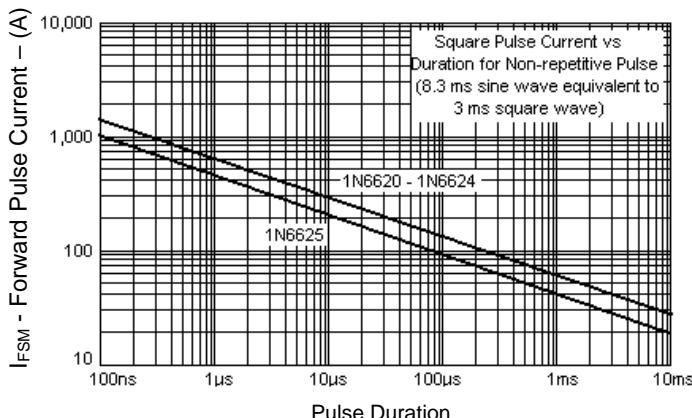


FIGURE 7
Forward Pulse Current vs.
Pulse Duration

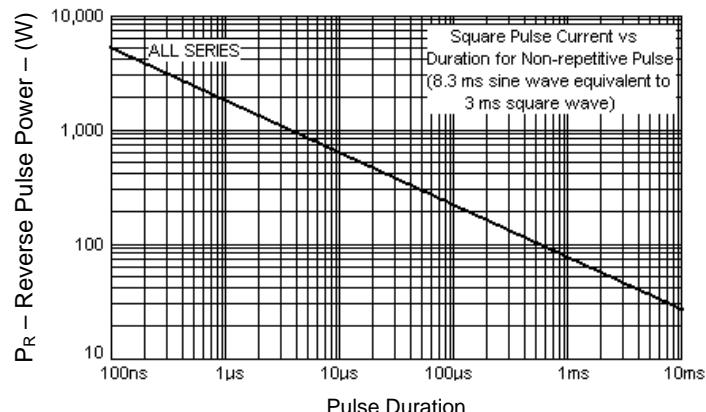
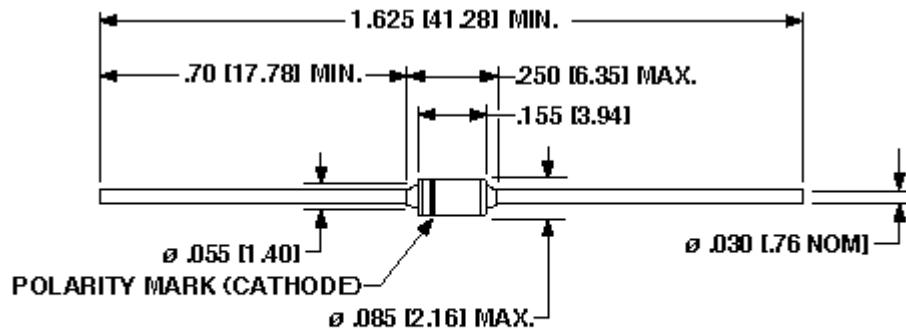


FIGURE 8
Reverse Pulse Power vs.
Pulse Duration

PACKAGE DIMENSIONS



NOTE: DIMENSIONS IN INCHES [mm]

Lead tolerance = +0.002/-0.003 inches