

DIGITRON SEMICONDUCTORS

MUR1605CT-MUR1620CT

16A SCHOTTKY RECTIFIER

MAXIMUM RATINGS

Rating	Symbol	MUR			Unit
		1605CT	1610CT	1620CT	
Peak repetitive reverse voltage	V_{RRM}	50	100	200	V
Maximum RMS voltage	V_{RMS}	35	70	140	
DC blocking voltage	V_R	50	100	200	
Average rectified forward current (Rated V_R)	$I_{F(AV)}$	16.0 @ $T_C = 120^\circ\text{C}$			A
Peak forward surge current (8.3ms, half sine)	I_{FSM}	90			A
Operating and storage junction temperature range	T_J, T_{stg}	-55 to +150			$^\circ\text{C}$

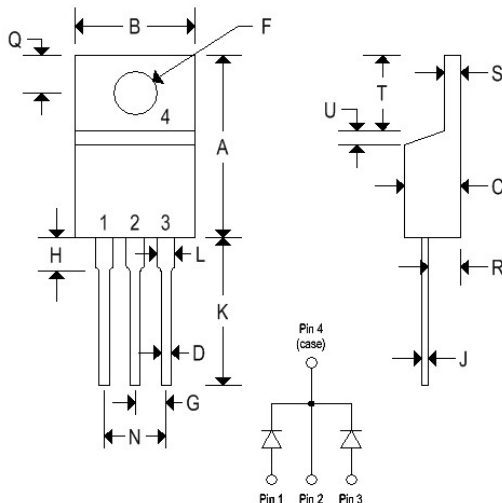
ELECTRICAL CHARACTERISTICS ($T_C = 25^\circ\text{C}$ unless otherwise noted)

Parameter	Symbol	MUR			Unit
		1605CT	1610CT	1620CT	
Maximum forward voltage drop ⁽¹⁾ ($I_F = 8.0\text{A}, T_J = 25^\circ\text{C}$) ($I_F = 16.0\text{A}, T_J = 25^\circ\text{C}$)	V_F	1.20 1.25			V
Maximum DC reverse current ⁽¹⁾ (Rated dc voltage, $T_J = 25^\circ\text{C}$) (Rated dc voltage, $T_J = 100^\circ\text{C}$)	I_R	5.0 100			μA
Maximum reverse recovery time ($I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{REC} = 0.25\text{A}$)	t_{rr}	35			ns
Typical junction capacitance @ 1.0MHz, $V_R = 4.0\text{V}$	C_J	80			pF

Note 1: Pulse test: Pulse width = 300 μs , duty cycle = 2.0%.

MECHANICAL CHARACTERISTICS

Case	TO-220AB
Marking	Alpha-numeric
Pin out	See below



	TO-220AB			
	Inches		Millimeters	
	Min	Max	Min	Max
A	0.570	0.620	14.480	15.750
B	0.380	0.405	9.660	10.280
C	0.160	0.190	4.070	4.820
D	0.025	0.035	0.640	0.880
F	0.142	0.147	3.610	3.730
G	0.095	0.105	2.420	2.660
H	0.110	0.155	2.800	3.930
J	0.018	0.025	0.460	0.640
K	0.500	0.562	12.700	14.270
L	0.045	0.060	1.150	1.520
N	0.190	0.210	4.830	5.330
Q	0.100	0.120	2.540	3.040
R	0.080	0.110	2.040	2.790
S	0.045	0.055	1.150	1.390
T	0.235	0.255	5.970	6.470
U	-	0.050	-	1.270

Available Non-RoHS (standard) or RoHS compliant (add PBF suffix).

Available as "HR" (high reliability) screened per MIL-PRF-19500, JANTX level. Add "HR" suffix to base part number.

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Kenilworth NJ 07033 USA

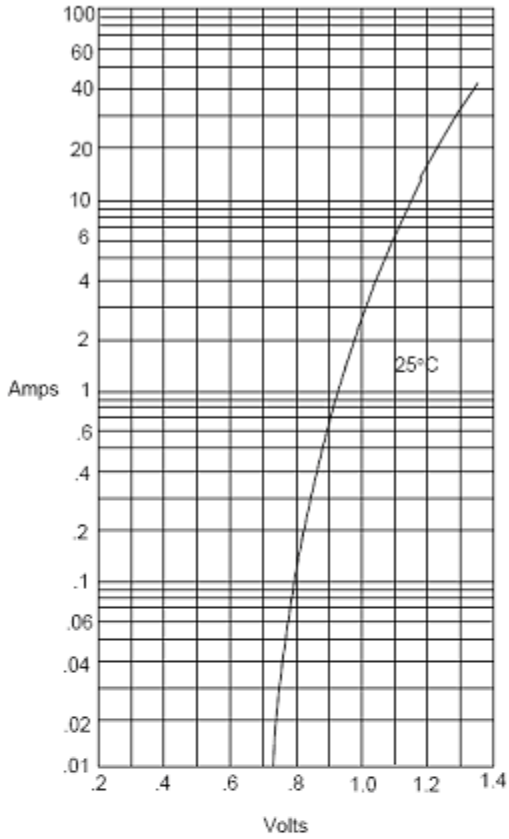
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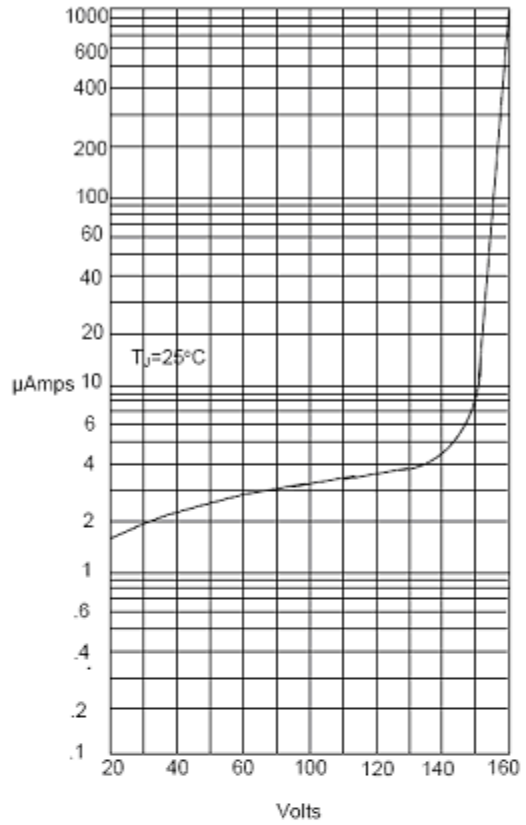
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Figure 1
Typical Forward Characteristics



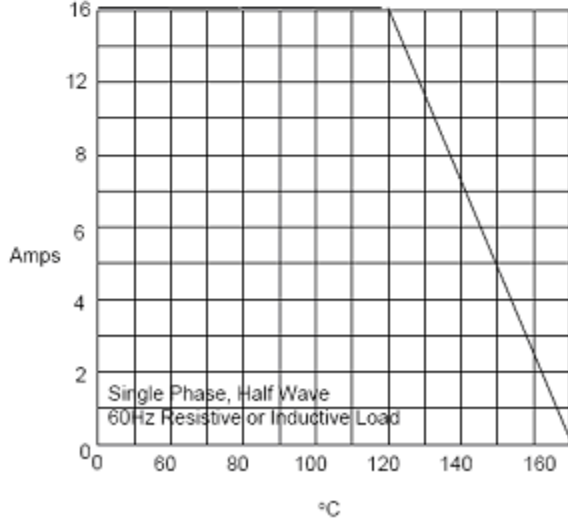
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Typical Reverse Characteristics



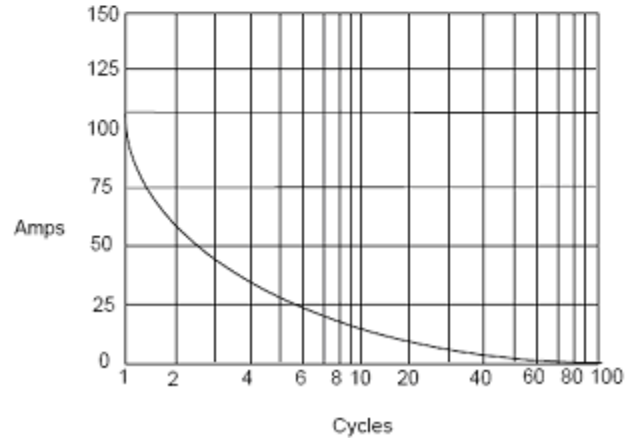
Instantaneous Reverse Leakage Current - MicroAmperes versus
Percent Of Rated Peak Reverse Voltage - Volts

Figure 3
Forward Derating Curve



Average Forward Rectified Current - Amperes versus
Case Temperature - °C

Figure 4
Maximum Non-Repetitive Forward Surge Current



Peak Forward Surge Current - Amperes versus
Number Of Cycles At 60Hz - Cycles