

# DIGITRON SEMICONDUCTORS

MUR2505-MUR2560

25A SCHOTTKY RECTIFIER

## MAXIMUM RATINGS

Rating	Symbol	MUR					Unit
		2505	2510	2520	2540	2560	
Peak repetitive reverse voltage	$V_{RRM}$	50	100	200	400	600	V
Maximum RMS voltage	$V_{RMS}$	35	70	40	280	420	
DC blocking voltage	$V_R$	50	100	200	400	600	
Average rectified forward current (Rated $V_R$ )	$I_{F(AV)}$	25.0 @ $T_L = 145^\circ\text{C}$					A
Peak forward surge current (8.3ms, half sine)	$I_{FSM}$	500					A
Operating and storage junction temperature range	$T_J, T_{stg}$	-65 to +175					$^\circ\text{C}$

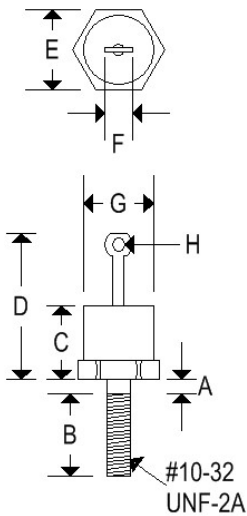
## ELECTRICAL CHARACTERISTICS (@ 25°C unless otherwise noted)

Parameter	Symbol	MUR					Unit
		2505	2510	2520	2540	2560	
Maximum instantaneous forward voltage <sup>(1)</sup> ( $I_F = 25.0\text{A}, T_A = 25^\circ\text{C}$ )	$V_F$	0.950			1.250		V
Maximum DC reverse current <sup>(1)</sup> (Rated dc voltage, $T_A = 25^\circ\text{C}$ )	$I_R$	10					$\mu\text{A}$
Maximum reverse recovery time ( $I_F = 0.5\text{A}, I_R = 1.0\text{A}, I_{REC} = 0.25\text{A}$ )	$t_{rr}$	50			75		ns
Typical junction capacitance @ 1.0MHz, $V_R = 4.0\text{V}$	$C_J$	100					pF

Note 1: Pulse test: Pulse width = 300 $\mu\text{s}$ , duty cycle = 1.0%.

## MECHANICAL CHARACTERISTICS

Case	DO-4(R)
Marking	Alpha-numeric
Normal polarity	Cathode is stud
Reverse polarity	Anode is stud (add "R" suffix)



	DO-4(R)			
	Inches		Millimeters	
	Min	Max	Min	Max
A	-	0.078	-	1.981
B	0.422	0.453	10.719	11.506
C	-	0.405	-	10.287
D	-	0.800	-	20.320
E	0.420	0.440	10.668	11.176
F	-	0.250	-	6.350
G	-	0.424	-	10.770
H	0.066	-	1.676	-

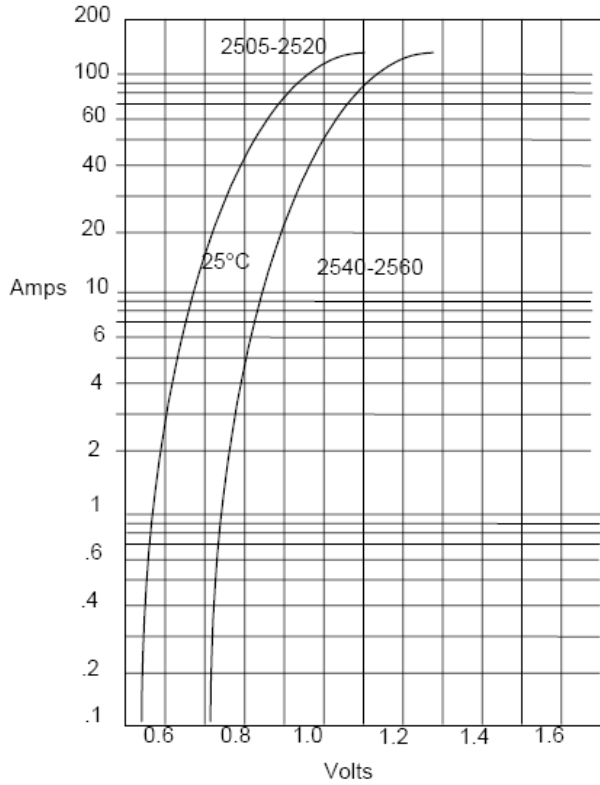
Available Non-RoHS (standard) or RoHS compliant (add PBF suffix).

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

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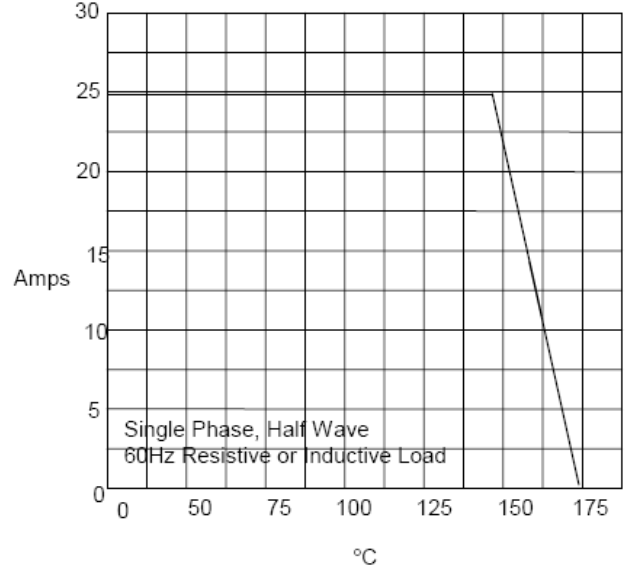
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Figure 1  
Typical Forward Characteristics



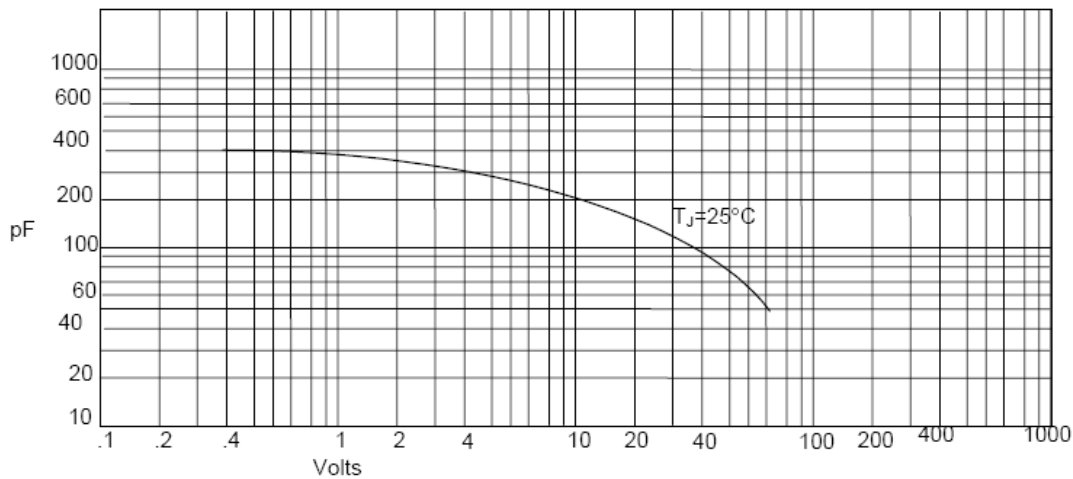
Instantaneous Forward Current - Amperes *versus*  
Instantaneous Forward Voltage - Volts

Figure 2  
Forward Derating Curve



Average Forward Rectified Current - Amperes *versus*  
Ambient Temperature - °C

Figure 3  
Junction Capacitance



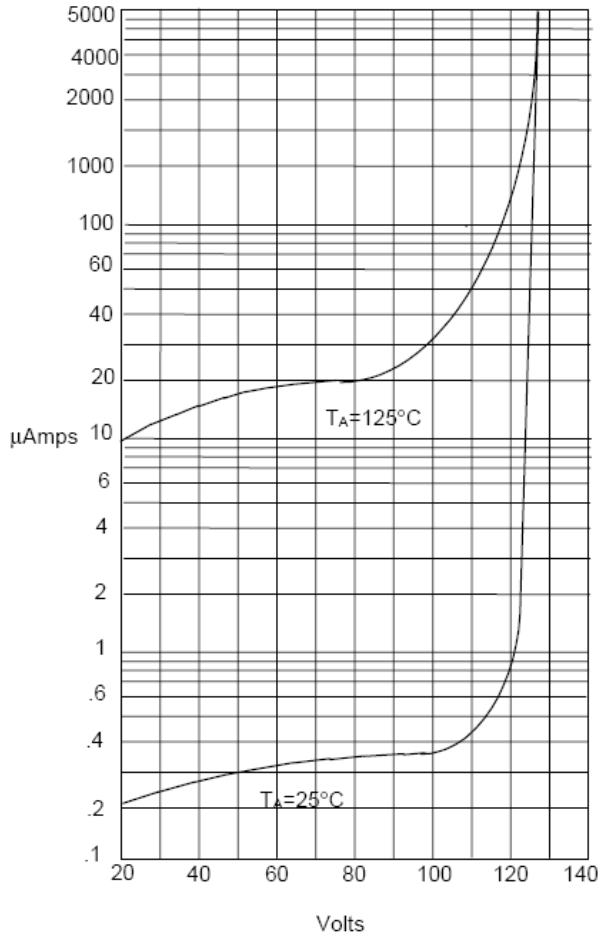
Junction Capacitance - pF *versus*  
Reverse Voltage - Volts

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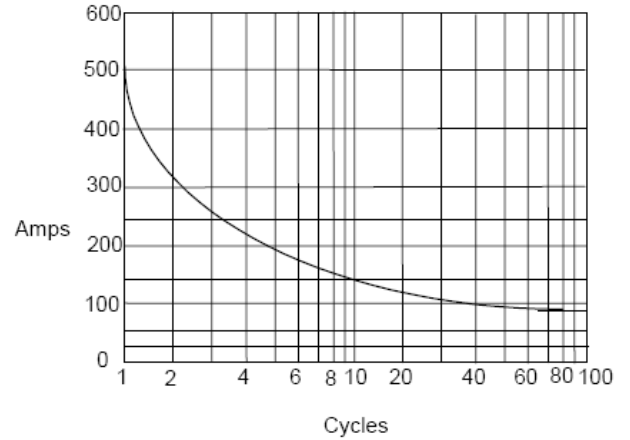
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Figure 4  
Typical Reverse Characteristics



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

Figure 5  
Peak Forward Surge Current



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