

MCC

Micro Commercial Components
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UFT7005SM THRU UFT7060SM

Features

- Supre Fast switching for high efficiency
- High Surge Capability
- Low Leakage
- Low Forward Voltage Drop
- High Current Capability

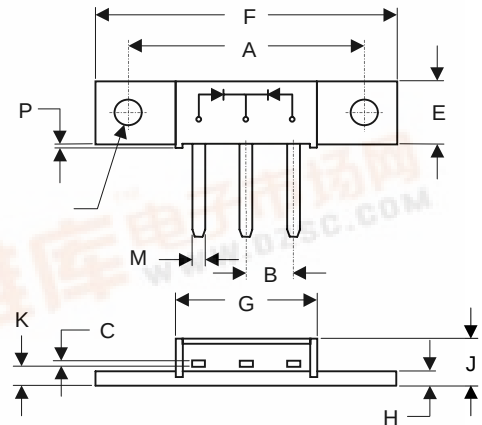
70 Amp Supre Fast Recovery Rectifier 50 to 600 Volts

Maximum Ratings

- Operating Temperature: -65°C to +175°C
- Storage Temperature: -65°C to +175°C

MCC Part Number	Maximum Recurrent Peak Reverse Voltage	Maximum RMS Voltage	Maximum DC Blocking Voltage
UFT7005SM	50V	35V	50V
UFT7010SM	100V	70V	100V
UFT7020SM	200V	40V	200V
UFT7040SM	400V	280V	400V
UFT7060SM	600V	420V	600V

MINIMOD-SM



Electrical Characteristics @ 25°C Unless Otherwise Specified

Average Forward Current	$I_{F(AV)}$	70 A	$T_L = 125^\circ\text{C}$
Peak Forward Surge Current 7040 7060	I_{FSM}	700A 600 A 500 A	8.3ms, half sine
Maximum Instantaneous Forward Voltage 7005-7020 7040 7060	V_F	0.95V 1.25V 1.35V	$I_{FM} = 35.0\text{A};$ $T_A = 25^\circ\text{C}$
Maximum DC Reverse Current At Rated DC Blocking Voltage	I_R	25 μA	$T_A = 25^\circ\text{C}$
Maximum Reverse Recovery Time 7005-7020 7040 7060	T_{rr}	50ns 60ns 75ns	$I_F=0.5\text{A}, I_R=1.0\text{A},$ $I_{rr}=0.25\text{A}$
Typical Junction Capacitance	C_j	240pF	Measured at 1.0MHz, $V_R=4.0\text{V}$

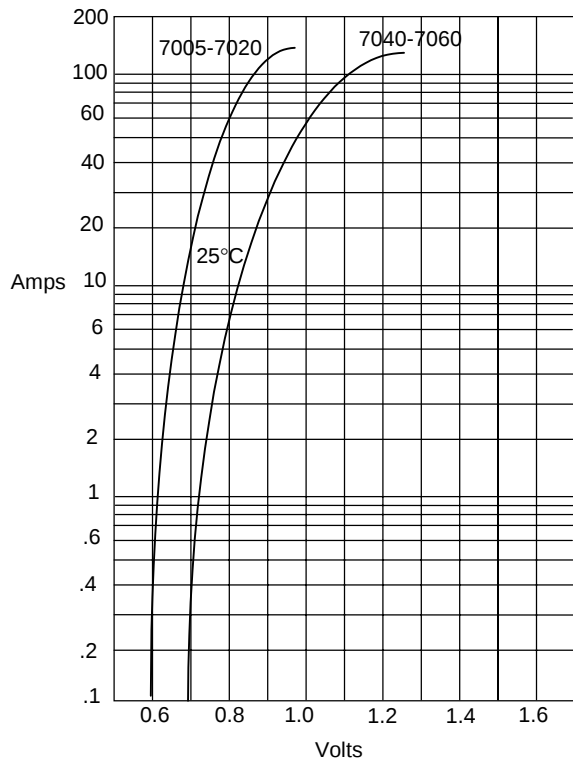
DIMENSIONS					
DIM	INCH		MM		NOTE
	MIN	MAX	MIN	MAX	
A	1.180	1.195	29.97	30.35	
B	.220	NOM	5.08	NOM	2PL
C	.027	.037	0.69	0.94	
E	.350	.370	8.89	9.40	
F	1.490	1.510	37.85	38.35	
G	.695	.715	17.65	18.16	
H	.088	.098	2.24	2.49	
J	.240	.260	6.10	6.60	
K	.115	.135	2.92	3.43	
L	.230	.250	5.84	6.35	
M	.065	.085	1.65	2.16	
N	.151	.161	3.84	4.09	
P	.015	.025	0.38	0.64	

*Pulse Test: Pulse Width 300 μsec , Duty Cycle 1%

UFT7005SM thru UFT7060SM

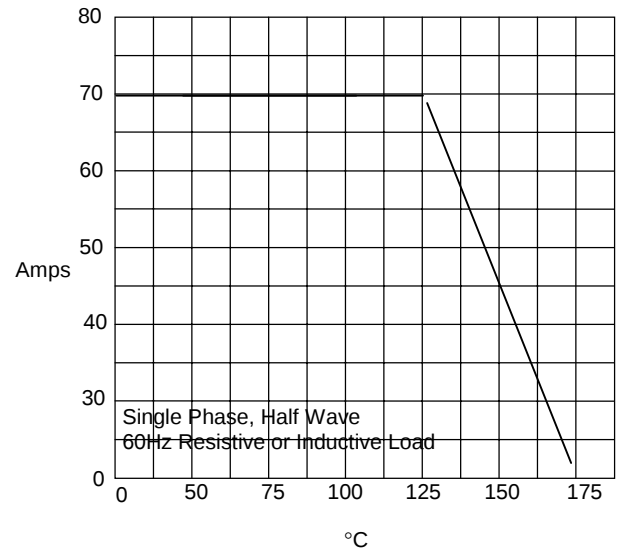


Figure 1
Typical Forward Characteristics



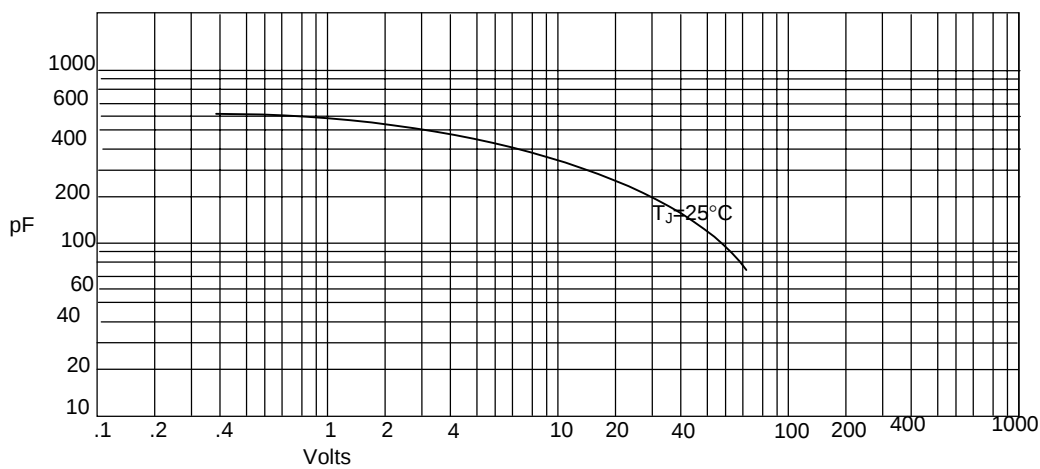
Instantaneous Forward Current - Amperes versus
Instantaneous Forward Voltage - Volts

Figure 2
Forward Derating Curve

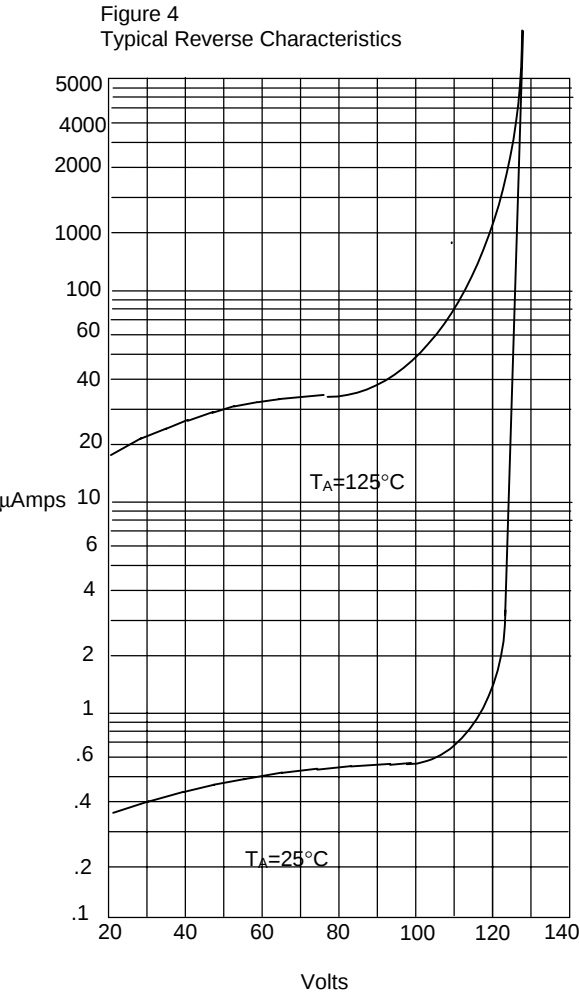


Average Forward Rectified Current - Amperes versus
Ambient Temperature - °C

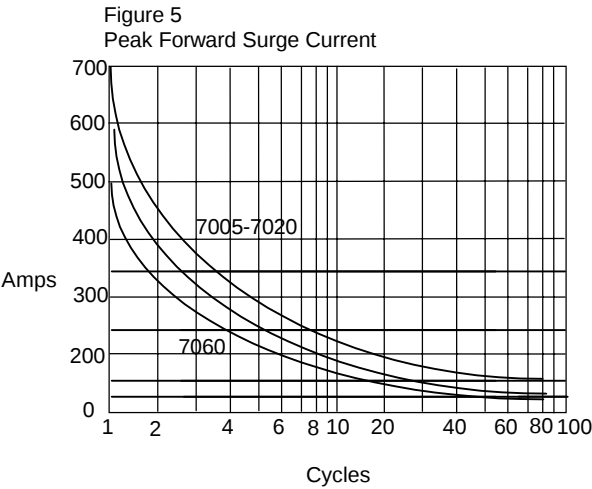
Figure 3
Junction Capacitance



Junction Capacitance - pF versus
Reverse Voltage - Volts



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



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