

Ultrafast Rectifiers

Surface Mount Ultrafast Rectifiers

Mfr.'s Type	V _{RRM} (V)	I _O (A)	I _O Rating Condition	Max. t _{rr} (ns)	Max. V _F @ I _F T _C =25°C (V)	I _{FSM} (A)	T _J Max. (°C)	Max I _{rr} ¹ T _J =25°C (μA)	Max I _{rr} ² T _L (mA) Package	Package Style
MURS120T3 ¹	200	1	T _L =155°C	35	0.875 @ 1.0 A	40	175	2	50	SMB
MURS360T3 ¹	600	3	T _L =130°C	75	1.250 @ 3.0 A	75	175	10	250	SMC
MURD620CT	200	6	T _L =145°C	35	1.000 @ 3.0 A	63	175	5	250 @ 125°C	DPAK

¹I_O is total device current capability. ²V_{RRM} unless noted. ³V_{RRM}, T_J=150°C unless noted. ⁴T3 suffix=2500/reel.

Axial Lead Ultrafast Rectifiers

Mfr.'s Type	V _{RRM} (V)	I _O (A)	I _O Rating Condition	Max. t _{rr} (ns)	Max. V _F @ I _F T _C =25°C (V)	I _{FSM} (A)	T _J Max. (°C)	Max I _{rr} ¹ T _J =25°C (mA)	Max I _{rr} ² T _L (mA)	Package Style
MUR120	200	1	T _A =130°C, R _{θJA} =50°C/W	25	0.875 @ 1.0 A	35	175	2	50	Case 59-04
MUR140	400	1	T _A =120°C, R _{θJA} =50°C/W	50	1.250 @ 1.0 A	35	175	5	150	Case 59-04
MUR160	600	1	T _A =120°C, R _{θJA} =50°C/W	50	1.250 @ 1.0 A	35	175	5	150	Case 59-04
MUR1100E	1000	1	T _A =95°C, R _{θJA} =50°C/W	75	1.750 @ 1.0 A	35	175	10	600 @ 100°C	Case 59-04
MUR420	200	4	T _A =80°C, R _{θJA} =28°C/W	25	0.875 @ 3.0 A	125	175	5	150	Case 267-03
MUR460	600	4	T _A =40°C, R _{θJA} =28°C/W	50	1.250 @ 3.0 A	70	175	10	250	Case 267-03
MUR4100E	1000	4	T _A =35°C, R _{θJA} =28°C/W	75	1.750 @ 3.0 A	70	175	25	900 @ 100°C	Case 267-03

³V_{RRM} unless noted. ⁴V_{RRM}, T_J=150°C unless noted.

TO-220 Type Ultrafast Rectifiers

Mfr.'s Type	V _{RRM} (V)	I _O (A)	I _O Rating Condition	Max. t _{rr} (ns)	Max. V _F @ I _F T _C =25°C (V)	I _{FSM} (A)	T _J Max. (°C)	Max I _{rr} ¹ T _J =25°C (mA)	Max I _{rr} ² T _L (mA)	Package Style
MUR620CT	200	6	T _C =130°C	35	0.975 @ 3.0 A	75	175	5	250	Case 221A-06
MUR1620CT	200	16	T _C =150°C	35	0.975 @ 8.0 A	100	175	5	250	Case 221A-06
MUR1620CTR	200	16	T _C =160°C	85	1.200 @ 8.0 A	100	175	5	500	Case 221A-06
MUR1660CT	600	16	T _C =150°C	60	1.500 @ 8.0 A	100	175	10	500	Case 221A-06
MUR820	200	8	T _C =150°C	35	0.975 @ 8.0 A	100	175	5	250	Case 221B-03
MUR840	400	8	T _C =150°C	50	1.300 @ 8.0 A	100	175	10	500	Case 221B-03
MUR860	600	8	T _C =150°C	50	1.500 @ 8.0 A	100	175	10	500	Case 221B-03
MUR8100E	1000	8	T _C =150°C	75	1.800 @ 8.0 A	100	175	25	500 @ 100°C	Case 221B-03
MUR10150E	1500	10	T _C =125°C	175	2.400 @ 6.5 A	100	125	100	1000 @ 125°C	Case 221B-03
MUR1520	200	15	T _C =150°C	35	1.050 @ 15.0 A	200	175	10	500	Case 221B-03
MUR1540	400	15	T _C =150°C	60	1.250 @ 15.0 A	150	175	10	500	Case 221B-03
MUR1560	600	15	T _C =145°C	60	1.500 @ 15.0 A	150	175	10	1000	Case 221B-03

³V_{RRM} unless noted. ⁴V_{RRM}, T_J=150°C unless noted.

TO-218 Types and TO-247 Ultrafast Rectifiers

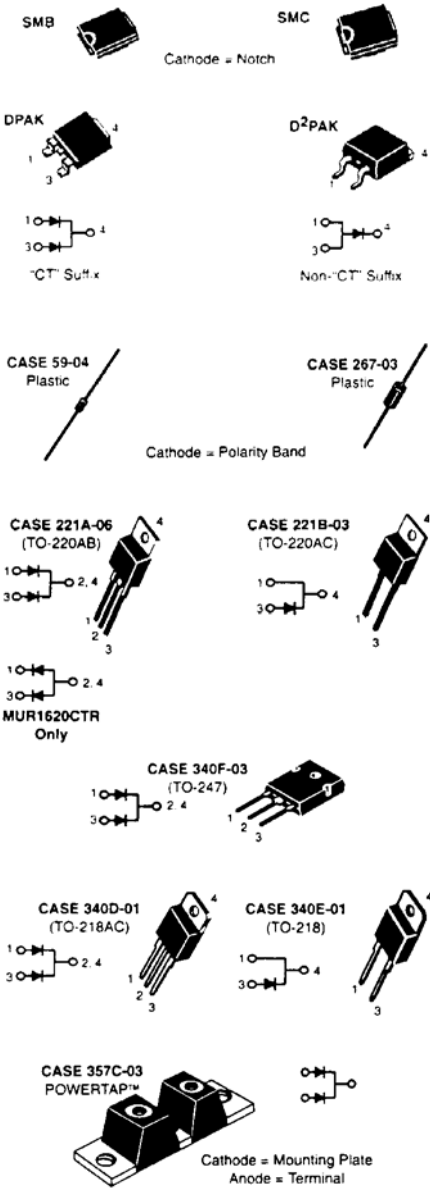
Mfr.'s Type	V _{RRM} (V)	I _O (A)	I _O Rating Condition	Max. t _{rr} (ns)	Max. V _F @ I _F T _C =25°C (V)	I _{FSM} (A)	T _J Max. (°C)	Max I _{rr} ¹ T _J =25°C (mA)	Max I _{rr} ² T _L (mA)	Package Style
MUR3060WT	600	30	T _C =145°C	60	1.70 @ 15 A	150	175	10	1.0	Case 340F-03
MUR3020PT	200	30	T _C =150°C	35	1.12 @ 15 A	200	175	10	0.5	Case 340D-01
MUR3040PT	400	30	T _C =150°C	60	1.12 @ 15 A	150	175	10	0.5	Case 340D-01
MUR3060PT	600	30	T _C =145°C	60	1.20 @ 15 A	150	175	10	1.0	Case 340D-01
MUR6040	400	60	T _C =70°C	100	1.50 @ 60 A	600	175	60	10.0 @ 100°C	Case 340E-01

³V_{RRM} unless noted. ⁴V_{RRM}, T_J=150°C unless noted.

Power Tap II SOT-227B Ultrafast Rectifiers

Mfr.'s Type	V _{RRM} (V)	I _O (A)	I _O Rating Condition	Max. t _{rr} (ns)	Max. V _F @ I _F T _C =25°C (V)	I _{FSM} (A)	T _J Max. (°C)	Max I _{rr} ¹ T _J =25°C (mA)	Max I _{rr} ² T _L (mA)	Package Style
MURP20040CT	400	200	T _C =100°C	50	1.30 @ 100 A	800	175	50	0.5 @ 125°C	Case 357C-03

¹I_O is total device current capability. ²V_{RRM} unless noted. ³V_{RRM}, T_J=150°C unless noted.



Fast Recovery Rectifiers/General-Purpose Rectifiers

Fast Recovery Rectifiers/General Purpose Rectifiers

Mfr.'s Type	V _{RRM} (V)	I _O (A)	I _O Rating Condition	Max. V _F @ I _F T _C =25°C (V)	Max. t _{rr} (ns)	I _{FSM} (A)	T _J Max. (°C)	Max I _{rr} ¹ T _J =25°C (μA)	Max I _{rr} ² T _L (mA)	Package Style
1N4004	400	1	T _A =75°C	1.10 @ 1.00 A	—	30	150	10	50	Case 59-03 ¹
1N4007	1000	1	T _A =75°C	1.10 @ 1.00 A	—	30	150	10	50	Case 59-03 ¹
1N4935	200	1	T _A =75°C	1.20 @ 3.14 A, T _J =125°C	200	30	150	5	100	Case 59-03 ¹
1N4937	600	1	T _A =75°C	1.20 @ 3.14 A, T _J =125°C	200	30	150	5	100	Case 59-03 ¹
1N5404	400	3	T _L =105°C	1.20 @ 9.40 A	—	200	150	—	500 @ 80°C	Case 267-03
1N5406	600	3	T _L =105°C	1.20 @ 9.40 A	—	200	150	—	500 @ 80°C	Case 267-03
MR852	200	3	T _A =80°C ¹	1.25 @ 3.00 A	200	100	150	10	200 @ 80°C	Case 267-03
MR856	600	3	T _A =80°C ¹	1.25 @ 3.00 A	200	100	150	10	300 @ 80°C	Case 267-03
MR754	400	6	T _A =60°C, R _{θJA} =25°C/W	1.25 @ 100.0 A	—	400	175	25	1000	Case 194-04
MR760	1000	6	T _A =60°C, R _{θJA} =25°C/W	1.25 @ 100.0 A	—	400	175	25	1000	Case 194-04

¹V_{RRM} unless noted. ²V_{RRM}, T_J=100°C unless noted. ³Package Size: 0.120" max. diameter by 0.260" length. ⁴Must be derated for reverse power dissipation. See data sheet.

