FAST SWITCHING DEVICE - Fast Recovery Diodes - Medium Power Stud Types

Old Part Number	Data Sheet Available	New Part Number	V_{RRM} Range (Note 3) (V)	$I_{F(AV)}$ at T_{sink} 55°C (A)	$I_{F(RMS)}$ Max. (at T_{sink}) (A)	I_F Max. (at T_{sink}) (A)	Typical Reverse Recovered Charge and Typical Reverse Recovery @ Tj Max (50% Chord) Qra (µC)	trr (µs)	I_{FM} (A)	di/dt (A/µs)	$I_{FSM(1)}$ 10ms V_R £60% V_{RRM} (Note 2) (A)	$I_{FSM(2)}$ 10ms V_R £10V (Note 2) (A)	$I^2t_{(2)}$ 10ms (A^2s)	I_{RRM} @ Tj Max (mA)	V_o @ Tj Max. (Note 1) (V)	r (mW)	V_{FM} at I_{FM} @ Tj Max Note 1 (V)	(A)	Tj Max (°C)	Rth j-c d.c.sine (K/W)	Rth j-c 120° Rect (K/W)	Rth c-hs (K/W)	Wt (typ) (g)	Mounting Torque ($kgfm^{-1}$)	Outline No. (Note 4)
SMxPCN074	N	M0104SRxx0	400-1000	104	118 (90°C)	118 (65°C)	32	0.98	100	150	1000	1150	6600	25	1.06	3.00	1.66	220	150	0.5	0.65	0.10	17	0.41 - 0.48	100A262
SMxPCN076	N	M0114SRxx0	200-400	114	118 (99°C)	118 (82°C)	11.3	0.50	100	150	1200	1380	9500	25	0.77	3.15	1.52	236	150	0.5	0.65	0.10	17	0.41 - 0.48	
SMxPCN085-1	N	M0094SRxx0	200-600	94	118 (72°C)	118 (49°C)	0.18*	0.15*	267	25	1100	1300	8450	20	1.24	1.91	1.75	267	125	0.44	0.6	0.10	17	0.41 - 0.48	
SMxPCN085-2	N	M0093SRxx0	800-1000	94	118(72°C)	118 (49°C)	0.98*	0.38*	267	25	1100	1300	8450	20	1.24	1.91	1.75	267	125	0.44	0.57	0.10	17	0.41 - 0.48	

Note 1 Vo Threshold Voltage, r Slope resistance) for conduction loss and heatsink calculations. (Tj = 125°C)

Note 2 I_{FSM} (8.3ms) = I_{FSM} (10ms) x 1.066 I^2t (8.3ms) = I^2t (10ms) x 0.943 at initial temperature Tj max.

Note 3 A blocking voltage derating factor of 0.13% per degree centigrade is applicable for Tj below 25°C

Note 4 Outline 100A262 - lead types, code changes from SR/RR (PCN/R) to SP/RP (PHN/R). Lead length 135mm. (base of hexagon to centre of lug hole)