

## Russian Type Semiconductors (Capsule Version)

### Features

- All diffuse technics
- Ceramic disc type seal
- Middle trigger
- Bifacial cooled
- High current

### Typical Applications

- Big power transformer
- AC & DC motor control
- AC & DC switch
- Phase control rectification
- Inverter
- Welder

### Ordering information Table

Device Code	T	I	43	800	16
	①	②	③	④	⑤
①	-D=Standard recovery diode		DF=Fast recovery diode		
	DL=Avalanche rectifier diode		T=Phase control thyristor		
	TB=Fast thyristor		TC=Triac thyristor		
②	-Voltage & cut time class				
③	-Device outline code				
④	-Current code= $I_{F(AV)}$ or $I_{T(AV)}$				
⑤	-Voltage code=Code $\times 100 = V_{RRM}$				



### Russian Type Standard Recovery Diodes(Capsule Version)

Type	$V_{RRM}$	$I_{RRM}$	$I_{F(AV)}$	$I_{F(RSM)}$	$I_{FSM}$	$V_{FM}/I_{FM}$	$T_j$	$R_{\theta}$	$M^2$	$Wt$	Outline
	V	mA	$T_c 55^\circ C$	$T_c 70^\circ C$	10ms	$25^\circ C$	$^\circ C$	$^\circ C/W$	KN	kg	
D123-200	400-3000	35	200	435	3.0	2.60/628	-40 ~ +150	0.08	6	0.091	RC1 RC2
D123-250	400-3000	35	250	550	3.5	2.45/785		0.08	6	0.091	
D123-320	400-3000	35	320	650	4.2	2.25/1005		0.08	6	0.091	
D123-400	400-3000	35	400	960	5.5	1.90/1255		0.08	6	0.091	
D123-500	400-3000	35	500	1200	7.5	1.80/1570		0.08	6	0.070	
D123-530	400-3000	35	530	1512	9.0	1.30/1978		0.08	6	0.070	
D133-400	400-5000	50	400	1200	7	2.10/1256		0.036	10	0.180	
D133-500	400-5000	50	500	1770	11	1.70/1570		0.038	10	0.180	
D133-630	400-5000	35	630	1970	11	1.80/1978		0.040	10	0.180	
D133-800	400-5000	40	800	2520	12	1.60/2512		0.038	10	0.180	
D133-1000	400-5000	40	1000	2530	16	1.55/3140		0.036	10	0.180	
D143-630	400-5000	50	630	1695	10.5	2.10/1978		0.027	15	0.240	
D143-800	400-5000	50	800	2825	16	1.55/2512		0.027	15	0.240	
D143-1000	400-5000	65	1000	3170	19	1.55/3140		0.027	15	0.240	
D143-1250	400-5000	70	1250	3285	20	1.65/3925		0.027	15	0.240	
D243-800	400-5000	45	800	1755	12.5	1.95/2512		0.030	15	0.240	
D243-1000	400-5000	50	1000	2610	18	1.65/3140		0.030	15	0.240	
D153-1000	400-5000	100	1240	2420	16	2.00/3140		0.018	26	0.550	
D153-1250	400-5000	100	1480	2950	18	1.95/3925		0.018	26	0.550	
D153-1600	400-5000	100	1820	3455	22	1.80/5024		0.018	26	0.550	
D173-2000	400-5000	150	2180	4265	28	2.00/6280	0.010	45	1.200		
D173-2500	400-5000	150	2800	5485	32	1.95/7850	0.010	45	1.200		
D173-3200	400-5000	150	3200	6455	40	1.80/10048	0.010	33	1.200		
D173-4000	400-5000	150	4660	9200	50	1.65/12580	0.011	45	1.200		
D173-5000	400-5000	150	5640	11544	65	1.45/15700	0.010	45	1.200		

Russian Type Fast Recovery Diodes (Capsule Version)

Type	V <sub>RRM</sub>	I <sub>RRM</sub>	I <sub>F(AV)</sub>	I <sub>F(RSM)</sub>	I <sub>F(SM)</sub>	V <sub>FM</sub> /I <sub>FM</sub>	T <sub>rr</sub>	Q <sub>rr</sub>	T <sub>j</sub>	R <sub>jc</sub>	M <sup>2</sup>	Wt	Outline
			T <sub>c</sub> 55 °C	T <sub>c</sub> 70 °C	10ms	25 °C	100 °C	100 °C					
	V	mA	A	A	kA	V/A	MS	μ C	°C	°C/W	KN	kg	
DF323-200	400-3000	50	200	400	3.0	3.20/628	≤2	70	-40 ~ +150	0.08	4.5	0.091	RC1
DF323-250	400-3000	50	250	500	4.5	1.95/785	≤3	70		0.08	4.5	0.067	RC2
DF333-300	400-3000	50	300	600	6.5	2.30/1250	≤3	100		0.04	10	0.180	RC3
DF333-400	400-3000	40	400	628	6.5	2.50/1256	≤3	100		0.04	10	0.180	
DF343-500	400-3000	50	500	785	10.5	3.00/1570	≤3	120		0.035	15	0.240	RC4
DF343-800	400-3000	40	800	1600	12.5	2.80/2500	≤4	130		0.035	15	0.240	
DF343-1000	400-3000	40	1000	2000	14.5	2.30/3140	≤4	150		0.035	15	0.240	RC6
DF353-800	400-3000	50	800	1600	9.5	3.50/2500	≤4	130		0.02	24	0.550	
DF353-1000	400-3000	100	1000	2000	16.0	3.20/2512	≤4	150		0.02	24	0.550	

Russian Type Avalanche Rectifier Diodes (Capsule version)

Type	V <sub>RRM</sub>	I <sub>RRM</sub>	I <sub>F(AV)</sub>	I <sub>F(RSM)</sub>	I <sub>F(SM)</sub>	i <sup>2</sup> t	V <sub>FM</sub> /I <sub>FM</sub>	T <sub>TO</sub>	r <sub>T</sub>	PRSM	T <sub>j</sub>	R <sub>jc</sub>	M <sup>2</sup>	Wt	Outline
			T <sub>c</sub> 55 °C	T <sub>c</sub> 70 °C	10ms		25 °C			100mks					
	V	mA	A	A	kA	A <sup>2</sup> S10 <sup>3</sup>	V/A	V	mΩ	kW	°C	°C/W	kN	kg	
DL123-320	400-1600	25	320	770	5.5	151	1.65/1000	0.90	0.830	16	-40 ~ +150	0.075	6	0.070	RC2
DL133-500	400-1600	25	500	1430	12	720	1.50/1570	0.85	0.410	16		0.040	10	0.180	RC3
DL153-800	400-2000	100	800		12	720	2.50/1500			16		0.020	24	0.550	RC6
DL153-1000	400-2000	50	1250	2240	13	1620	3.00/3140	1.30	0.540	16		0.020	22	0.550	
DL153-1250	1200-3200	50	1250	1740	26	3380	2.00/4000	1.10	0.350	16		0.020	24	0.550	
DL153-1600	1200-3200	50	1600	2980	26	3380	2.00/5024	1.00	0.300	16		0.020	24	0.550	
DL153-2000	1600-3200	50	2000	2650	30	4500	1.80/6280	0.90	0.185	16		0.020	24	0.550	RC8
DL173-3200	2400-3200	100	3250	5760	45	10125	2.2/10053	1.10	0.124	16		0.011	45	1.300	
DL173-4000	1600-2400	100	3860	6870	50	12500	2.2/12560	1.00	0.080	16		0.011	45	1.300	

Russian Type Phase Control Thyristors (Capsule version)

Type	V <sub>RRM</sub>	I <sub>RRM</sub>	I <sub>T(AV)</sub>	I <sub>T(RSM)</sub>	I <sub>T(SM)</sub>	V <sub>TM</sub> /I <sub>TM</sub>	d/d <sub>t</sub>	d <sub>v</sub> /d <sub>t</sub>	V <sub>GT</sub>	I <sub>GT</sub>	I <sub>H</sub>	T <sub>j</sub>	R <sub>jc</sub>	T <sub>q</sub>	M <sup>2</sup>	Wt	Outline
			T <sub>c</sub> 55 °C	T <sub>c</sub> 70 °C	10ms	25 °C			25 °C								
	V	mA	A	A	kA	V/A	A/μ S	V/μ S	V	mA	mA	°C	°C/W	μ s	KN	kg	
T123-200	400-1600	15	200	265	4.0	1.90/628	200	200-1600	3.5	250	≤200	-40 ~ +125	0.08	250	6	0.07	RC1
T123-250	400-1600	20	250	750	4.5	1.75/785	200	200-1600	3.5	250	≤200		0.08	250	6	0.07	
T123-320	400-1600	20	330	1090	5.0	1.65/1005	200	500-1600	2.5	250	≤200		0.08	100-200	6	0.07	RC2
T123-500	400-800	30	500	550	6.0	1.50/1570	200	500-1600	2.5	200	≤250		0.07	63-125	6	0.07	RC2
T133-400	400-1600	30	400	935	8.0	1.75/1258	200	200-1600	2.5	200	≤250		0.045	250	10	0.18	
T133-500	100-800	50	500	1720	10	1.50/1570	320	500-1600	2.5	150	≤250		0.035	160	10	0.10	RC3
T233-500	400-1800	30	500	1160	9.0	1.80/1570	200	500-1600	2.5	250	≤250		0.04	100-200	10	0.10	
T133-600	100-800	50	600	2085	12	1.60/2512	200	500-1600	2.5	250	≤250		0.035	63-125	10	0.18	RC4
T133-630	100-1200	40	630	1430	12	1.65/1978	200	500-1600	2.5	250	≤250		0.04	80-160	10	0.10	
T143-500	400-1600	40	500	1175	11	1.80/1570	200	200-1600	3.5	300	≤250		0.034	250	15	0.240	RC5
T243-500	1800-3200	40	550	1110	10	2.00/1570	200	500-1600	2.5	250	≤250	0.034	200-400	15	0.240		
T143-600	900-1800	70	640	1250	9.0	1.95/1978	200	500-1600	2.5	250	≤300	0.032	160-320	15	0.240	RC6	
T143-1000	100-1200	50	800	1585	14	1.70/2512	200	500-1600	2.5	250	≤300	0.032	100-200	15	0.160		
T143-1250	100-800	30	1045	1860	19	1.60/3140	200	500-1600	2.5	250	≤300	0.030	80-160	15	0.160	RC7	
T153-800	100-1000	50	800	1840	20	1.90/2512	200	200-1600	3.5	300	≤300	0.024	100-400	24	0.500		
T153-1250	100-800	100	1250	3000	18	1.50/4000	300	500-1600	3.5	300	≤300	0.016	100-400	24	0.550	RC8	
T153-1600	100-800	100	1600	3500	22	1.45/5000	300	500-1600	3.5	200	≤300	0.016	100-400	24	0.550		
T253-500	5200-6000	150	530	1175	10	2.40/1570	100	500-1600	3.5	200	≤300	0.026	100-400	24	0.550	RC8	
T253-800	2000-2400	70	800	1470	17	2.10/2500	200	200-1600	3.5	350	≤300	0.020	100-400	24	0.550		
T253-1000	1000-1800	70	1000	2300	22	1.80/3140	200	200-1600	3.5	300	≤300	0.020	100-400	24	0.550		
T253-1250	400-1800	70	1250	1830	28	1.60/3925	200	200-1600	3.5	300	≤300	0.018	100-400	24	0.550		
T173-2000	1600-2000	200	2000	4600	49	1.65/6280	320	500-1600	3.5	300	≤300	0.011	100-400	24	1.200		
T173-2500	200-2400	100	2700	5750	52	1.70/7850	200	500-1600	3.5	350	≤300	0.010	100-400	24	1.200		
T173-3200	200-2400	200	3360	7360	60	1.50/10050	320	500-1600	3.5	300	≤300	0.010	100-400	24	1.200		
T173-4000	200-2400	200	4000	9200	62	1.50/12560	200	500-1600	3.5	300	≤300	0.010	100-400	24	1.200		

Russian Type Triac Thyristors (Capsule Version)

Type	$V_{RRM}$	$I_{RRM}$	$I_{T(AV)}$	$I_{T(SM)}$	$V_{TM}/I_{TM}$	$d/d_t$	$d_v/d_t$	$V_{GT}$	$I_{GT}$	$I_H$	$T_j$	$R_{jc}$	$M^2$	$Wt$	Outline
			$T_c 55^\circ C$	10ms	25°C			25°C			°C	°C/W	KN	kg	
	V	mA	A	kA	V/A	A/ $\mu$ S	V/ $\mu$ S	V	mA	mA					
TC123-200	200-1600	25	200	1.2	2.50/320	25	6.3-100	3.0	300	$\leq 300$	-40 ~ +125	0.037	10	0.100	RC2
TC123-300	200-1600	25	300	1.6	2.20/500	25	6.3-100	3.0	300	$\leq 300$		0.037	10	0.100	
TC133-500	200-1600	25	500	3.0	2.50/700	25	6.3-100	3.0	300	$\leq 300$		0.04	10	0.180	RC3
TC133-630	200-1600	25	630	3.3	2.20/800	63	6.3-100	3.0	300	$\leq 300$		0.37	10	0.180	
TC143-800	200-1600	25	800	4.5	1.95/120	25	6.3-100	3.0	300	$\leq 400$		0.03	10	0.240	RC4
TC143-1000	200-1600	25	1000	5.0	1.75/1400	25	6.3-100	3.0	300	$\leq 400$	0.028	10	0.240		

Russian Type Fast Thyristors (Capsule Version)

Type	$V_{RRM}$	$I_{RRM}$	$I_{T(AV)}$	$I_{T(RSM)}$	$I_{T(SM)}$	$V_{TM}/I_{TM}$	$d/d_t$	$d_v/d_t$	$V_{GT}$	$I_{GT}$	$I_H$	$T_j$	$R_{jc}$	$T_q$	$M^2$	$Wt$	Outline
			$T_c 55^\circ C$	$T_c 70^\circ C$	10ms	25°C			25°C			°C	°C/W	$\mu$ s	KN	kg	
	V	mA	A	A	kA	V/A	A/ $\mu$ S	V/ $\mu$ S	V	mA	mA						
TB323-400	300-1400	40	400	628	6.5	2.7/1250	500	500-1000	3.5	300	$\leq 200$	-40 ~ +125	0.035	12.5,16,32,40	10	0.10	RC2
TB333-500	300-1400	40	500	785	7.5	2.2/1570	500	500-1000	3.5	300	$\leq 200$		0.035	16,20,25,32,40	10	0.18	RC3
TB343-500	500-1000	50	500	785	9.0	2.6/1570	500	500-1000	3.5	300	$\leq 200$		0.028	25,2,40	15	0.16	RC4
TB143-630	500-1400	50	630	990	10.5	2.1/2000	500	500-1000	3.5	300	$\leq 300$		0.028	25,32,40,50	15	0.16	
TB153-630	600-1400	100	630	990	1.5	2.4/2000	630	1000-1600	3.5	400	$\leq 300$		0.021	20,25,32,40,50	24	0.55	RC5
TB453-800	600-1400	100	800	1250	15.0	2.3/2500	630	1000-1600	3.5	400	$\leq 300$	0.021	25,32,40,50,63	24	0.55		
TB143-500 "	1400-2400	70	500	800	9.0	2.5/1570	500	500-1000	2.5	300	$\leq 200$	0.035	25,32,40,50,63	15	0.24	RC4	
TB553-800 "	1400-2400	120	800	1250	17.0	2.8/2500	630	500-1000	2.5	400	$\leq 400$	0.021	25,32,40,50,63	24	0.55	RC6	
TB453-1000 "	600-1400	100	1000	1600	16.0	2.5/3140	630	1000-1600	3.5	400	$\leq 400$	0.021	40,50,63	24	0.55		
TB273-2000 "	1400-2400	120	2000	3200	40.0	1.85/6280	1000	500-1000	5.0	400	$\leq 400$	0.011	40,50,63	45	1.20	RC8	

Russian Type Capsule Version Outline

<p><b>RC1(123)</b></p> <p><math>\phi 26</math>    Power    Install force 200-300A    10-20KN</p>	<p><b>RC2(123B)</b></p> <p><math>\phi 30</math>    Power    Install force 300-600A    15-20KN</p>	<p><b>RC3(133)</b></p> <p><math>\phi 40</math>    Power    Install force 500-800A    15-20KN</p>	<p><b>RC4(143)</b></p> <p><math>\phi 45</math>    Power    Install force 500-1000A    18-25KN</p>
<p><b>RC5(143B)</b></p> <p><math>\phi 45</math>    Power    Install force 500-1000A    18-25KN</p>	<p><b>RC6(153)</b></p> <p><math>\phi 55</math>    Power    Install force 1000-2000A    20-30KN</p>	<p><b>RC7(153B)</b></p> <p><math>\phi 60</math>    Power    Install force 1000-2000A    30-40KN</p>	<p><b>RC8(173)</b></p> <p><math>\phi 80</math>    Power    Install force 2000-4000A    35-40KN</p>