

Russia Type Semiconductor (capsule Version)

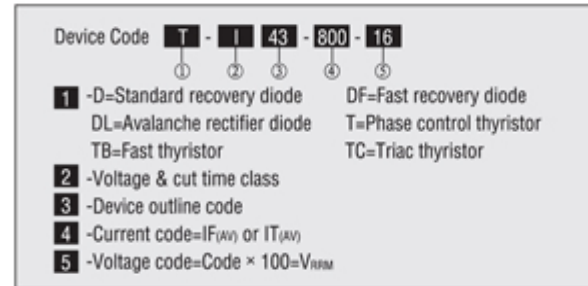
Features

- 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



Explanation

- I_{GT}, V_{GT}, I_H are all $T_A=25^\circ\text{C}$ test data, others are all $T_A=T_{jm}$ test data.
- $I^2t = I_{TSM}^2 \times t_{1/2}$; $t_{1/2} = \text{Half sine wave current, when at 50Hz, } I^2t = 0.005 I_{TSM}^2 (\text{A}^2\text{S})$
- When at 60Hz, $I_{TSM}(8.3\text{ms}) = I_{TSM}(10\text{ms}) \times 1.066$, $T_j = T_{jm}$ $I^2t(8.3\text{ms}) = I^2t(10\text{ms}) \times 0.943$, $T_j = T_{jm}$



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Russia Type Standard Recovery Diode(Capsule version)											
Type	V_{RRM}	I_{RRM}	$I_{F(AV)}$	$I_{F(RSM)}$	I_{FSM}	V_{FM}/I_{FM}	T_j	R_{jc}	M^2	Wt	Outline
			Tc55°C	Tc70°C	10ms	25°C					
	V	mA	A	A	kA	V/A	°C	°C/W	KN	kg	
D123-200	400-3000	35	200	435	3	2.60/628	-40°C	0.08	6	0.091	RC1
D123-250	400-3000	35	250	550	3.5	2.45/785	~	0.08	6	0.091	RC2
D123-320	400-3000	35	320	650	4.2	2.25/1005	+150°C	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	0.07	
D123-530	400-3000	35	530	1512	9	1.30/1978		0.08	6	0.07	
D133-400	400-5000	50	400	1200	7	2.10/1256		0.036	10	0.18	

D133-500	400-5000	50	500	1770	11	1.70/1570		0.038	10	0.18	RC3						
D133-630	400-5000	35	630	1970	11	1.80/1978		0.04	10	0.18							
D133-800	400-5000	40	800	2520	12	1.60/2512		0.038	10	0.18							
D133-1000	400-5000	40	1000	2530	16	1.55/3140		0.036	10	0.18							
D143-630	400-5000	50	630	1695	10.5	2.10/1978		0.027	15	0.24	RC4						
D143-800	400-5000	50	800	2825	16	1.55/2512		0.027	15	0.24							
D143-1000	400-5000	65	1000	3170	19	1.55/3140		0.027	15	0.24							
D143-1250	400-5000	70	1250	3285	20	1.65/3925		0.027	15	0.24							
D243-800	400-5000	45	800	1755	12.5	1.95/2512		0.03	15	0.24	RC6						
D243-1000	400-5000	50	1000	2610	18	1.65/3140		0.03	15	0.24							
D253-1000	400-5000	100	1240	2420	16	2.00/3140		0.018	26	0.55							
D253-1250	400-5000	100	1480	2950	18	1.95/3925		0.018	26	0.55							
D253-1600	400-5000	100	1820	3455	22	1.80/5024		0.018	26	0.55	RC8						
D173-2000	400-5000	150	2180	4265	28	2.00/6280		0.01	45	1.2							
D173-2500	400-5000	150	2800	5485	32	1.95/7850		0.01	45	1.2							
D173-3200	400-5000	150	3200	6455	40	1.80/10048		0.01	33	1.2							
D173-4000	400-5000	150	4660	9200	50	1.65/12580		0.011	45	1.2							
D173-5000	400-5000	150	5640	11544	65	1.45/15700		0.01	45	1.2							

Russia Type Fast Recovery Diode (Capsule Version)

Type	V _{RRM}	I _{RRM}	I _{F(AV)}	I _{F(RSM)}	I _{F(SM)}	V _{FM} /I _{FM}	T _{rr}	Q _{rr}	T _j	R _{jc}	M ²	Wt	Outline					
			Tc55°C	Tc70°C	10ms	25°C	100°C	100°C										
	V	mA	A	A	kA	V/A	MS	µc	°C	°C/W	KN	kg						
DF323-200	400-3000	50	200	400	3	3.20/628	≤2	70	-40°C	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	+150°C	0.04	10	0.18	RC3					
DF333-400	400-3000	40	400	628	6.5	2.50/1256	≤3	100		0.04	10	0.18						
DF343-500	400-3000	50	500	785	10.5	3.00/1570	≤3	120		0.035	15	0.24	RC4					
DF343-800	400-3000	40	800	1600	12.5	2.80/2500	≤4	130		0.035	15	0.24						
DF343-1000	400-3000	40	1000	2000	14.5	2.30/3140	≤4	150		35	15	0.24						
DF353-800	400-3000	50	800	1600	9.5	3.50/2500	≤4	130		0.02	24	0.55	RC6					
DF353-1000	400-3000	100	1000	2000	16	3.20/2512	≤4	150		0.02	24	0.55						

Russia Type Avalanche Rectifier Diode(Capsule Version)																	
Type	V _{RRM}	I _{RRM}	I _{F(AV)}	I _{F(RSM)}	I _{F(SM)}	i ² t	V _{FM} /I _{FM}	T _{TO}	r _T	PRSM	T _J	R _{jc}	M ²	Wt	Outline		
			Tc55°C	Tc70°C	10ms		25°C			100mks							
	V	mA	A	A	kA	A ² S10 ³	V/A	V	mΩ	kW	°C	°C/W	KN	kg			
DL123-320	400-1600	25	320	770	5.5	151	1.65/1000	0.9	0.83	16	-40°C	0.075	6	0.07	RC2		
DL133-500	400-1600	25	500	1430	12	720	1.50/1570	0.85	0.41	16	~	0.04	10	0.18	RC3		
DL153-800	400-2000	100	800		12	720	2.50/1500			16	+150°C	0.02	24	0.55	RC6		
DL153-1000	400-2000	50	1250	2240	13	1620	3.00/3140	1.3	0.54	16		0.02	22	0.55			
DL153-1250	1200-3200	50	1250	1740	26	3380	2.00/4000	1.1	0.35	16		0.02	24	0.55			
DL153-1600	1200-3200	50	1600	2980	26	3380	2.00/5024	1	0.3	16		0.02	24	0.55			
DL153-2000	1600-3200	50	2000	2650	30	4500	1.80/6280	0.9	0.185	16		0.02	24	0.55			
DL173-3200	2400-3200	100	3250	5760	45	10125	2.2/10053	1.1	0.124	16		0.011	45	1.3	RC8		
DL173-4000	1600-2400	100	3860	6870	50	12500	2.2/12560	1	0.08	16		0.011	45	1.3			

Russia Type Phase Control Thyristor (Capsule version)																	
Type	V _{RRM}	I _{RRM}	I _{T(AV)}	I _{T(RSM)}	I _{T(SM)}	V _{TM} /I _{TM}	d _i /d _t	d _v /d _t	V _{GT}	I _{GT}	I _H	T _J	R _{jc}	T _q	M ²	Outline	
			Tc55°C	Tc70°C	10ms	25°C				25°C							
	V	mA	A	A	kA	V/A	A/μs	V/μs	V	mA	mA	°C	°C/W	μs	KN		
T123-200	400-1600	15	200	265	4	1.90/628	200	200-1600	3.5	250	≤200	-40°C	0.08	250	6	RC1	
T123-250	400-1600	20	250	750	4.5	1.75/785	200	200-1600	3.5	250	≤200	~	0.08	250	6	RC2	
T123-320	400-1600	20	330	1090	5	1.65/1005	200	500-1600	2.5	250	≤200	+125°C	0.08	100-200	6		
T123-500	400-800	30	500	550	6	1.50/1570	200	500-1600	2.5	200	≤250		0.07	63-125	6		
T133-400	400-1600	30	400	935	8	1.75/1258	200	200-1600	2.5	200	≤250		0.045	250	10	RC2	
T133-500	100-800	50	500	1720	10	1.50/1570	320	500-1600	2.5	150	≤250		0.035	160	10	RC3	
T233-500	400-1800	30	500	1160	9	1.80/1570	200	500-1600	2.5	250	≤250		0.04	100-200	10		
T133-600	100-800	50	600	2085	12	1.60/2512	200	500-1600	2.5	250	≤250		0.035	63-125	10		

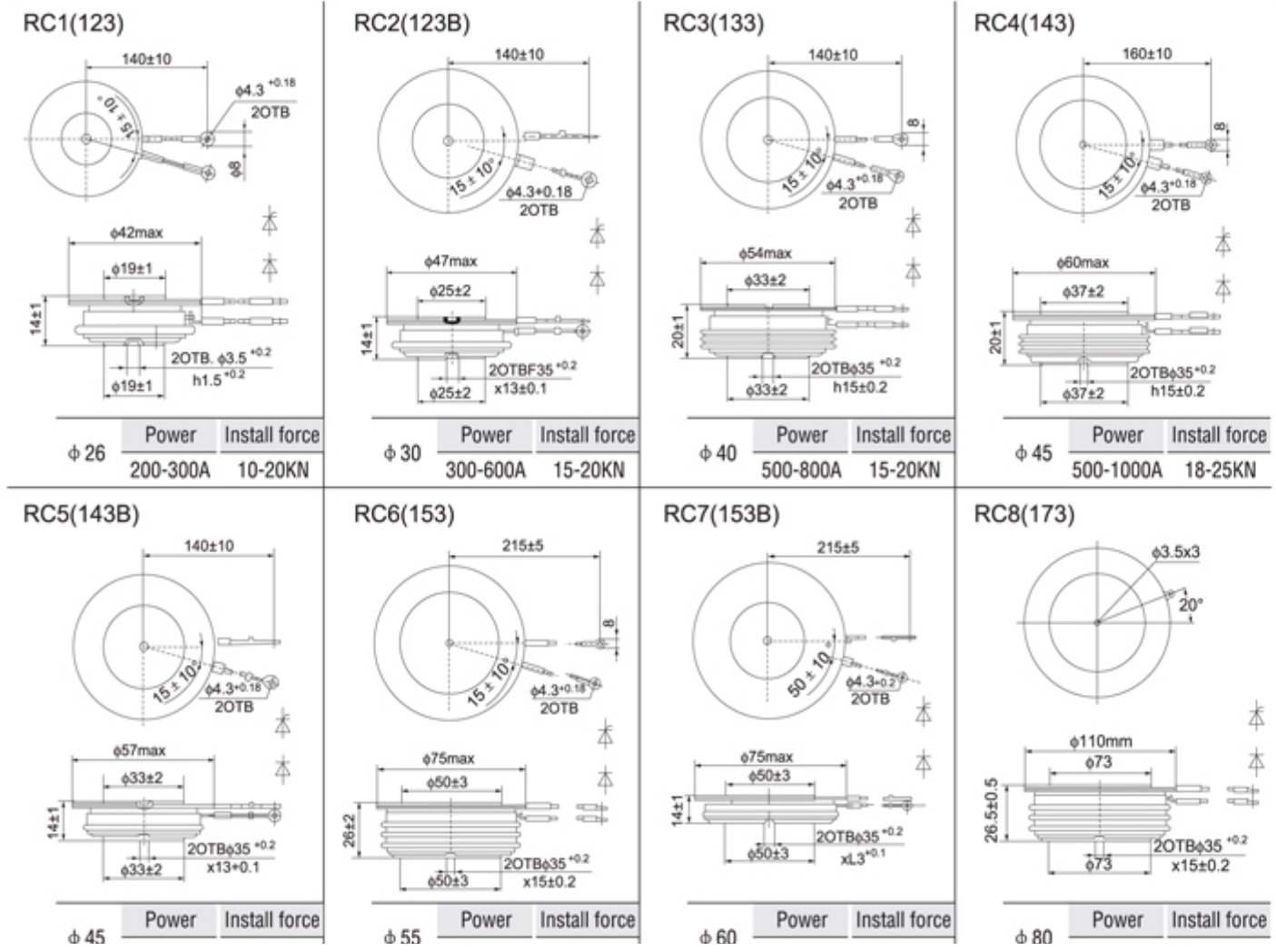
T133-630	100-1200	40	630	1430	12	1.65/1978	200	500-1600	2.5	250	≤250		0.04	80-160	10		
T143-500	400-1600	40	500	1175	11	1.80/1570	200	200-1600	3.5	300	≤250		0.034	250	15	RC4	
T243-500	1800-3200	40	550	1110	10	2.00/1570	200	500-1600	2.5	250	≤250		0.034	200-400	15	RC5	
T143-600	900-1800	70	640	1250	9	1.95/1978	200	500-1600	2.5	250	≤300		0.032	100-200	15		
T143-1000	100-1200	50	800	1585	14	1.70/2512	200	500-1600	2.5	250	≤300		0.032	200-400	15		
T143-1250	100-800	30	1045	1860	19	1.60/3140	200	500-1600	2.5	250	≤300		0.03	80-160	15		
T153-800	100-1000	50	800	1840	20	1.90/2512	200	200-1600	3.5	300	≤300		0.024	100-200	24	RC6	
T153-1250	100-800	100	1250	3000	18	1.50/4000	300	500-1600	3.5	300	≤300		0.016	100-200	24	RC7	
T153-1600	100-800	100	1600	3500	22	1.45/5000	300	500-1600	3.5	200	≤300		0.016	100-140	24		
T253-500	5200-6000	150	530	1175	10	2.40/1570	100	500-1600	3.5	200	≤300		0.026	100-400	24		
T253-800	2000-2400	70	800	1470	17	2.10/2500	200	200-1600	3.5	350	≤300		0.02	100-140	24		
T253-1000	1000-1800	70	1000	2300	22	1.80/3140	200	200-1600	3.5	300	≤300		0.02	100-140	24		
T253-1250	400-1800	70	1250	1830	28	1.60/3925	200	200-1600	3.5	300	≤300		0.018	100-140	24		
T173-2000	1600-2000	200	2000	4600	49	1.65/6280	320	500-1600	3.5	300	≤300		0.011	100-140	24	RC8	
T173-2500	200-2400	100	2700	5750	52	1.70/7850	200	500-1600	3.5	350	≤300		0.01	100-140	24		
T173-3200	200-2400	200	3360	7360	60	1.50/10050	320	500-1600	3.5	300	≤300		0.01	100-140	24		
T173-4000	200-2400	200	4000	9200	62	1.50/12560	200	500-1600	3.5	300	≤300		0.01	100-140	45		

Russia Type Triac Thyristor(Capsule Version)

Type	V _{RRM}	I _{RRM}	I _{T(AV)}	I _{T(SM)}	V _{TM} /I _{TM}	d _i /d _t	d _v /d _t	V _{GT}	I _{GT}	I _H	T _j	R _{jc}	M ²	Wt	Outline
			Tc55°C	10ms	25°C				25°C						
	V	mA	A	kA	V/A	A/μs	V/μs	V	mA	mA	°C	°C/W	KN	kg	
TC123-200	200-1600	25	200	1.2	2.50/320	25	6.3-100	3	300	≤300	-40°C	0.037	10	0.1	RC2
TC123-300	200-1600	25	300	1.6	2.20/500	25	6.3-100	3	300	≤300	~	0.037	10	0.1	
TC133-500	200-1600	25	500	3	2.50/700	25	6.3-100	3	300	≤300	+125°C	0.04	10	0.18	RC3
TC133-630	200-1600	25	630	3.3	2.20/800	63	6.3-100	3	300	≤300		0.37	10	0.18	
TC143-800	200-1600	25	800	4.5	1.95/120	25	6.3-100	3	300	≤300		0.03	10	0.24	RC4
TC143-1000	200-1600	25	1000	5	1.75/140 0	25	6.3-100	3	300	≤300		0.028	10	0.24	

Russia Type Fast Thyristor(Capsule Version)																	
Type	V _{RRM}	I _{RRM}	I _{T(AV)}	I _{T(RSM)}	I _{T(SM)}	V _{TM} /I _{TM}	d _i /d _t	d _v /d _t	V _{GT}	I _{GT}	I _H	T _j	R _{jc}	T _q	M ²	Outline	
			Tc55°C	Tc70°C	10ms	25°C				25°C							
	V	mA	A	A	kA	V/A	A/μs	V/μs	V	mA	mA	°C	°C/W	μs	KN		
TB323-400	300-1400	40	400	628	6.5	2.7/1250	500	500-1000	3.5	300	≤200	-40°C	0.035	12.5,16,32,40	10	RC2	
TB333-500	300-1400	40	500	785	7.5	2.2/1570	500	500-1000	3.5	300	≤200	~	0.035	16,20,25,32,40	10	RC3	
TB343-500	500-1000	50	500	785	9	2.6/1570	500	500-1000	3.5	300	≤200	+125°C	0.028	25,2,40	15	RC4	
TB143-630	500-1400	50	630	990	10.5	2.1/2000	500	500-1000	3.5	300	≤300		0.028	25,32,40,50	15		
TB153-630	600-1400	100	630	990	1.5	2.4/2000	630	1000-1600	3.5	400	≤300		0.021	20,25,32,40,50	24	RC5	
TB453-800	600-1400	100	800	1250	15	2.3/2500	630	1000-1600	3.5	400	≤300		0.021	25,32,40,50,63	24		
TB143-500"	1400-2400	70	500	800	9	2.5/1570	500	500-1000	2.5	300	≤200		0.035	25,32,40,50,63	15	RC4	
TB553-800"	1400-2400	120	800	1250	17	2.8/2500	630	500-1000	2.5	400	≤400		0.021	25,32,40,50,63	24	RC6	
TB453-1000"	600-1400	100	1000	1600	16	2.5/3140	630	1000-1600	3.5	400	≤400		0.021	40,50,63	24		
TB273-2000"	1400-2400	120	2000	3200	40	1.85/6280	1000	500-1000	5	400	≤400		0.021	40,50,63	45	RC8	

Russia Type Capsule Version Outline



ϕ 45	Power	Instal force
	500-1000A	18-25KN

ϕ 55	Power	Instal force
	1000-2000A	20-30KN

ϕ 60	Power	Instal force
	1000-2000A	30-40KN

ϕ 80	Power	Instal force
	2000-4000A	35-40KN