

Composed of a power device of converter is the core of railway locomotive power supply, power distribution, power compensation, no electrical control device and terminal equipment, including in the electric locomotive power device applications in three fields: DC regulated power supply, electric locomotive main circuit, auxiliary circuit and control system.

Platform company locomotive power device fully consider three factors encountered in the use of locomotive:

1 Over voltage Factors: the presence of atmospheric over-voltage over-voltage and over-voltage, to cope with various absorption circuit overvoltage in allowable range.

2 Over current Factors: should start current and fault current limitation in the range of security.

3 Over heating Factors: the radiating heat by overheating cooling system through loss by device, the device works to maintain the temperature within the prescribed limits. Platform company locomotive power device products, reliability testing was conducted in strict accordance with the IEC standard.

Rectifier diode of railway locomotive

Model	V <sub>RRM</sub>	I <sub>F(AV)</sub>		I <sub>FSM</sub>	I <sub>RRM</sub>	V <sub>FM</sub> /I <sub>FM</sub>	Q <sub>rr</sub>	V <sub>FO</sub>	r <sub>T</sub>	T <sub>j</sub>	R <sub>th(j-c)</sub>
	150°C		@T <sub>hs</sub>		150°C	25°C	Typical Value	150°C			
	V	A	°C	kA	mA	V/A		μC	V	mΩ	°C
T38ZPD	2500-2800	500	T <sub>c85</sub>	7	40	1.60/1500	3500	0.88	0.49	150	0.045
T50ZPD	2500-3000	800	T <sub>c85</sub>	23	60	1.45/1500	5000	0.82	0.22	150	0.022
T70ZPD	1000-3000	2000	T <sub>c85</sub>	35	50	1.30/3000	8000	0.95	0.11	150	0.013
T100ZPE	3000-4000	5000	T <sub>c85</sub>	50	150	1.40/5000	15000	0.92	0.07	150	0.0057
T100ZPG	3500-5000	5000	T <sub>c85</sub>	50	120	1.45/5000	15000	0.92	0.07	150	0.0057



Thyristor of railway locomotive

Model	$V_{DRM}/V_{RRM}$	$I_{T(AV)}$		$I_{TSM}$	$dv/dt$	$di/dt$	$I_{DRM}/I_{RRM}$	$I_{GT}$	$V_{GT}$	$I_H$	$V_{TM}/I_{TM}$	Qrr	$V_{TO}$	$r_T$	$T_j$	$R_{th(j-c)}$
	125°C		@ $T_c$		125°C		125°C	25°C			Typical Value		125°C			
	V	A	°C	kA	V/μs	A/μs	mA	mA	V	mA	V/A	μC	V	mΩ	°C	°C/W
T50KPE	1100-1800	800	$T_c$ 70	20	1000	100	60	50-200	1.0-2.5	20-300	1.85/2000	4000	0.91	0.23	125	0.022
T65KPE	1000-1800	2000	$T_c$ 70	25	1000	200	100	60-180	1.0-2.5	20-300	1.80/2000	5000	0.87	0.14	125	0.014
T65KPM	3100-5000	1300	$T_c$ 70	17	1000	200	100	60-180	1.0-2.5	20-300	1.80/2000	5000	1.30	0.48	125	0.014
T76KPM	3100-5000	1400	$T_c$ 70	20	500	250	200	50-200	1.0-3.0	20-300	2.30/3000	8000	1.30	0.32	125	0.011
T100KPM	4000-5500	3500	$T_c$ 70	42	1000	100	200	80-150	1.0-2.0	30-500	2.00/3000	15000	1.13	0.18	125	0.0057

