

130MT160K

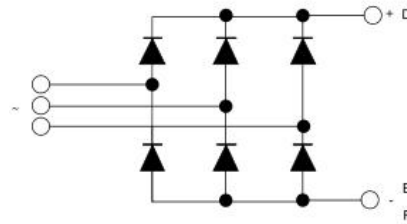
PRODUCT FEATURES

- Package fully compatible with the industry standard INT-A-PAK power modules series
- High thermal conductivity package, electrically insulated case
- Excellent power volume ratio
- Designed and qualified for industrial level



APPLICATIONS

- Three phase rectifiers for power supplies
- Input rectifiers for variable frequency drives
- Rectifiers for DC motor field supplies
- Battery charger rectifiers



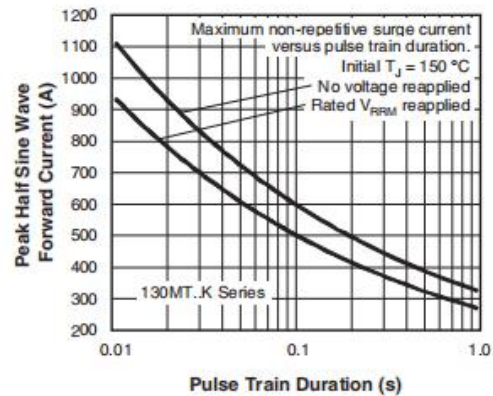
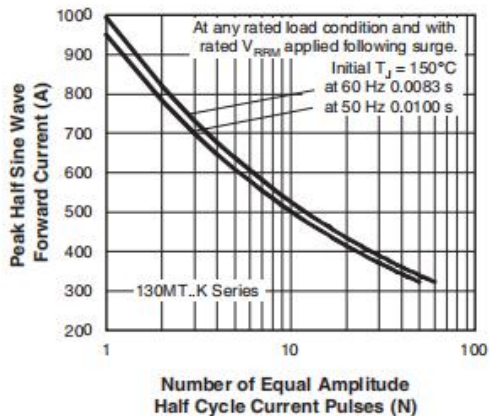
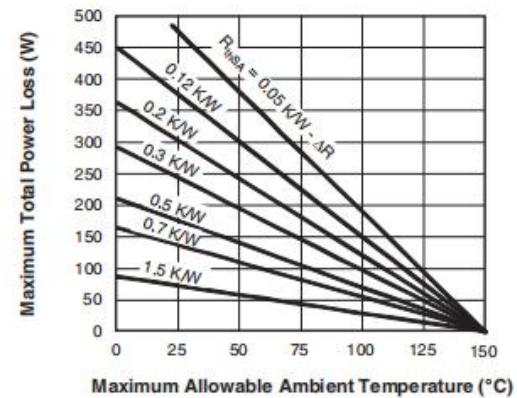
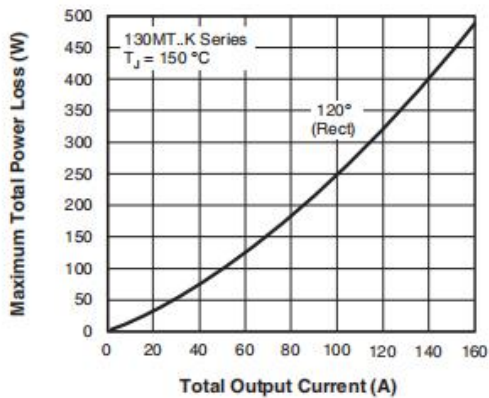
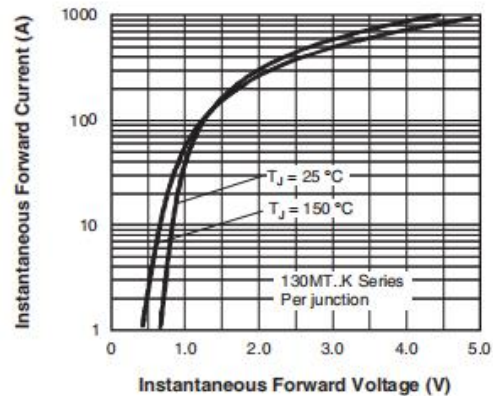
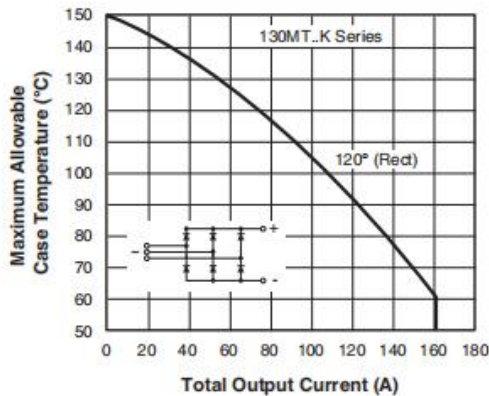
ABSOLUTE MAXIMUM RATINGS

T_C=25°C unless otherwise specified

Symbol	Parameter	Test Conditions	Values	Unit
V _{RRM}	Maximum Repetitive Reverse Voltage		1600	V
V _{RSM}	Maximum Non-Repetitive Reverse Voltage		1700	V
I _D	Average Forward Current	T _C =85(62)°C	130(160)	A
I _{FSM}	Non-Repetitive Surge Forward Current	50Hz/60Hz	1130/1180	A
I ² t	I ² t (For Fusing)	50Hz/60Hz	6400/5800	A ² s
V _{F(TO)1}	Low level value of threshold voltage	16.7%* π *I _{F(AV)} < I < π *I _{F(AV)} , T _{CJ} =150°C	0.78	V
V _{F(TO)2}	High level value of threshold voltage	I > π *I _{F(AV)} , T _{CJ} =150°C	0.99	V
r _{f1}	Low level value of forward slope resistance	16.7%* π *I _{F(AV)} < I < π *I _{F(AV)} , T _{CJ} =150°C	4.59	m Ω
r _{f2}	High level value of forward slope resistance	I > π *I _{F(AV)} , T _{CJ} =150°C	4.17	m Ω
V _{ISO}	Isolation Voltage @AC1s	50Hz	3000	V
T _J	Junction Temperature		-40 to +150	°C
T _{STG}	Storage Temperature Range		-40 to +150	°C
M _d	To heatsink (M6)		4~6	N·m
	To terminals (M5)		3~4	N·m
R _{θJC}	Maximum thermal resistance, Junction to case	DC operation per module	0.16	°C/W
		DC operation per junction	0.93	
		120° rect. Per module	0.18	
		120° rect. Per junction	1.08	
R _{θcs}	Case to heatsink	Per module	0.03	

ELECTRICAL CHARACTERISTICS (Per diode $T_C=25^{\circ}\text{C}$ unless otherwise specified)

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{RRM}		$T_C=150^{\circ}\text{C}$			10	mA
V_{FM}	Forward Voltage Drop	$I_F=200\text{A}$, $T_J=25^{\circ}\text{C}$			1.63	V



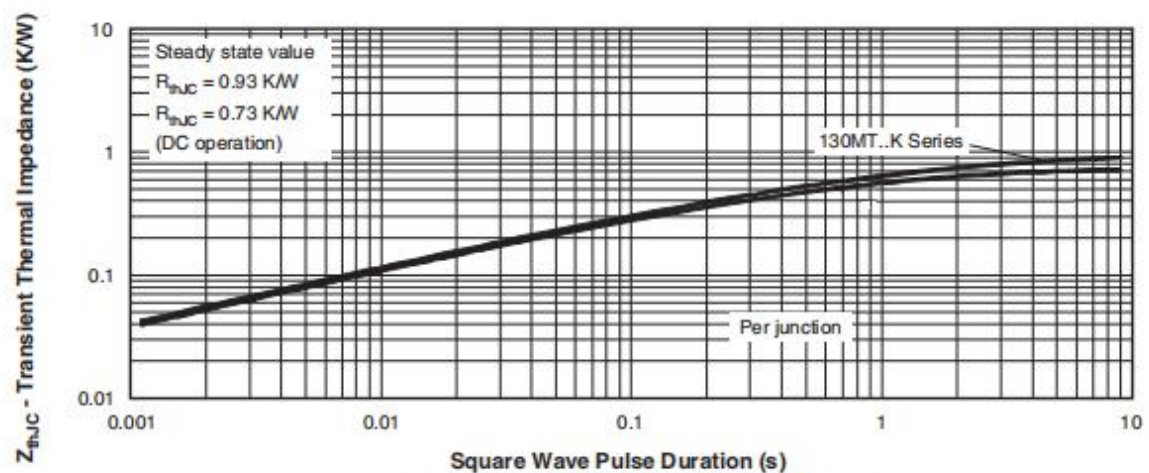


Fig. 6 - Thermal Impedance Z_{thJC} Characteristics

