

Features

- Electrical insulation between chip and mounting base, 2500V AC insulation
- Excellent temperature characteristics and power cycling capability
- Space-saving and lightweight design

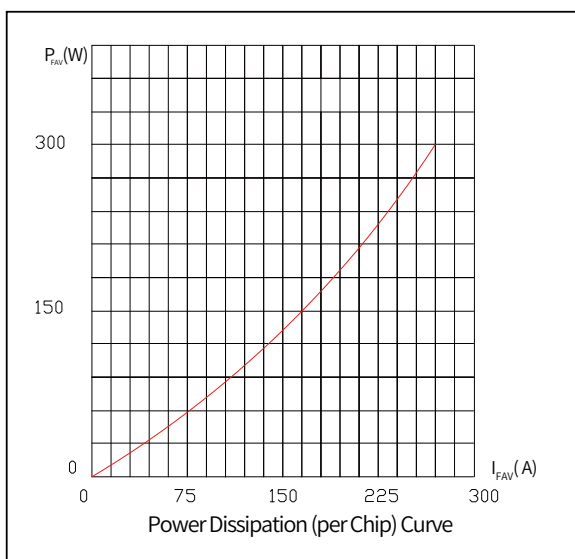
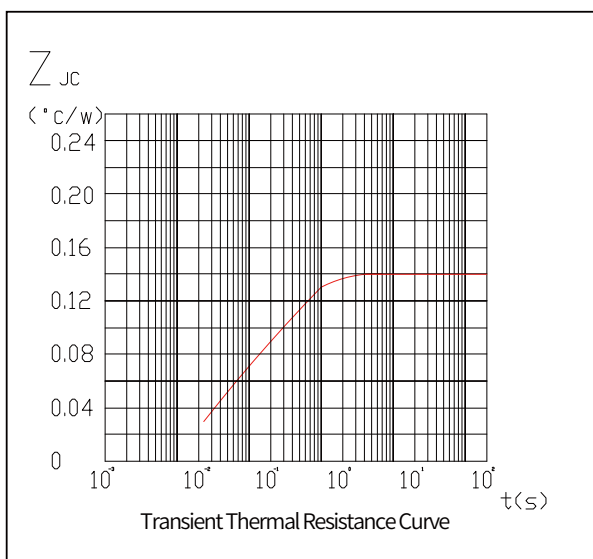
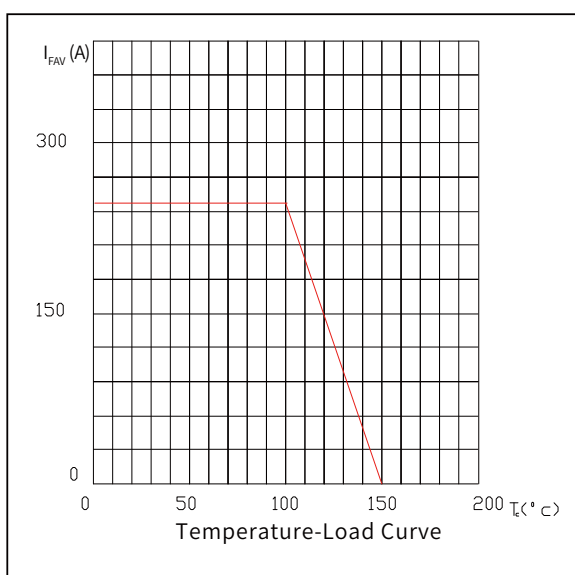
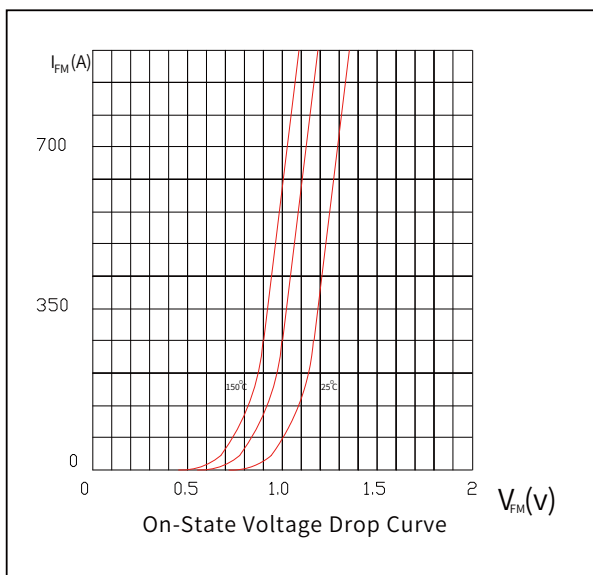
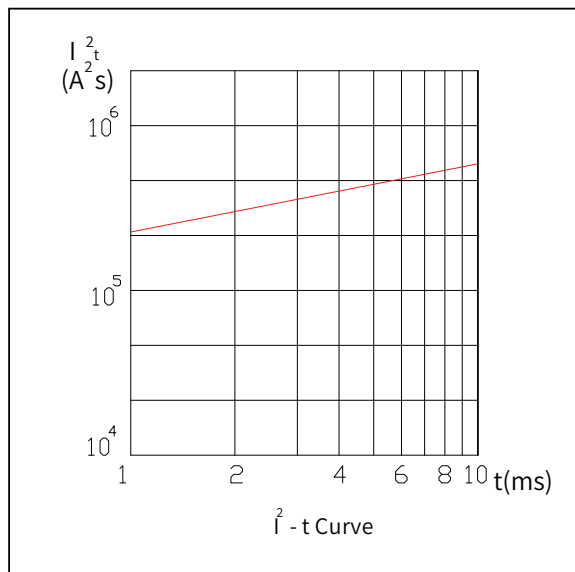
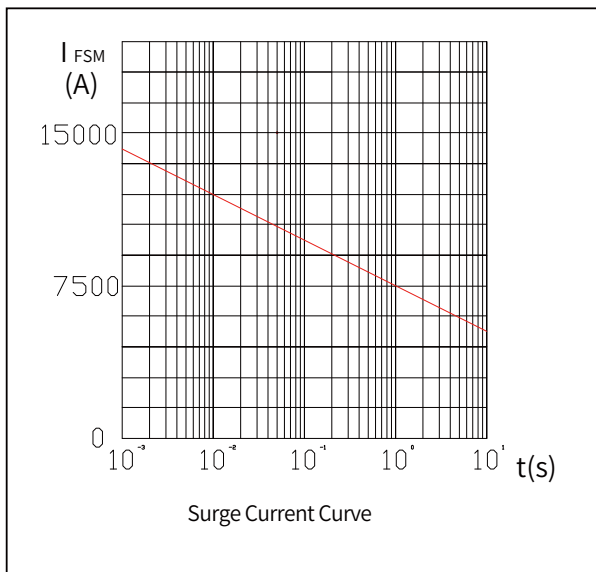


Typical Applications

- AC/DC motor control
- Various rectifier power supplies
- Frequency converters

$V_{RSM}(V)$	$V_{RRM}(V)$	Model
600	500	MDC250 -5

Parameter	Characteristic	Test Conditions	$T_j(^{\circ}C)$	Value			Unit
				Min	Typ	Max	
$I_{F(AV)}$	Mean Forward Current	180° sine halfwave, 50Hz, singleside cooling, $T_c=100^{\circ}C$	150			250	A
I_{FSM}	Non-repetitive Surge(On-state) Current	10ms, sine halfwave, $V_R=0.6V_{RRM}$	150			12	kA
I_t^2						720	$A^2s \cdot 10^3$
I_{RRM}	Repetitive Peak Reverse Current	At V_{RRM}	150			4	mA
V_{FO}	Threshold Voltage		150			0.85	V
r_F	Slope Resistance		150			0.36	mΩ
V_{FM}	Peak Forward Voltage	$I_{FM}=750A$	25		1.15	1.30	V
V_{iso}	Insulation Voltage	AC, 50Hz, R.M.S, 1min		2500			V
$R_{th(j-c)}$	Junction to Case Thermal Resistance	Singleside cooling, single die				0.14	$^{\circ}C/W$
$R_{th(c-h)}$	Case to Sink Thermal Resistance	Singleside cooling, single module				0.04	$^{\circ}C/W$
M_t	Terminal Mounting Torque			10		12	N · m
M_s	Base Plate Mounting Torque			4		6	N · m
T_{stg}	Storage Temperature			-40		150	$^{\circ}C$



Outline Package Dimensions

03

