NIKO-SEM

Trench MOS Barrier Schottky Rectifier

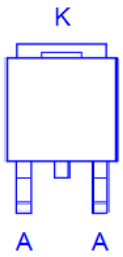
D1010ADT

TO-252

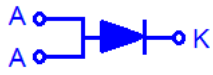
Halogen-Free & Lead-Free

PRODUCT SUMMARY

$I_{F(AV)}$	10A
V_{RRM}	100V
I_{FSM}	120A
$V_{F(typ)}$	0.63V
$T_{j(max.)}$	150°C



RoHS Compliant



A : Anode
K : Cathode

ABSOLUTE MAXIMUM RATINGS

PARAMETERS/TEST CONDITIONS	SYMBOL	LIMITS	UNITS
Maximum Repetitive Reverse Voltage	V_{RRM}	100	V
Average Rectifier Forward Current Total Device (Rated VR)	$I_{F(av)}$	10	A
Peak forward surge current 8.3 ms single half sine-wave superimposed on rated load per diode	I_{FSM}	120	
Operating Junction and Storage Temperature Range	T_j ,T_{STG}	-55 to +150	°C

THERMAL RESISTANCE RATING

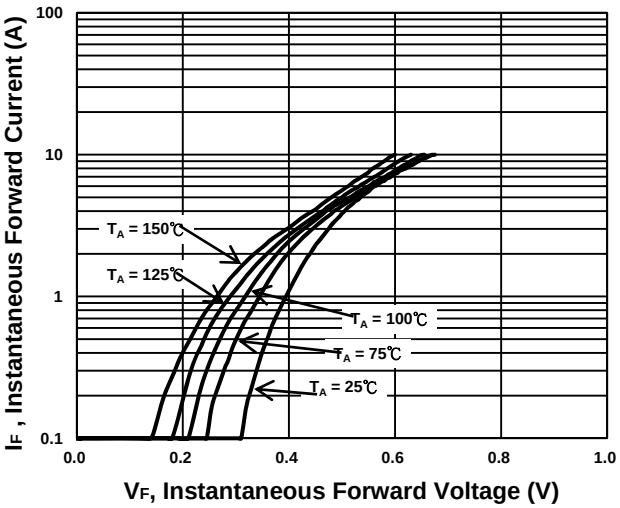
THERMAL RESISTANCE	SYMBOL	LIMITS	UNITS
Typical Thermal Resistance	$R_{\theta JC}$	2.5	℃/W

ELECTRICAL CHARACTERISTICS

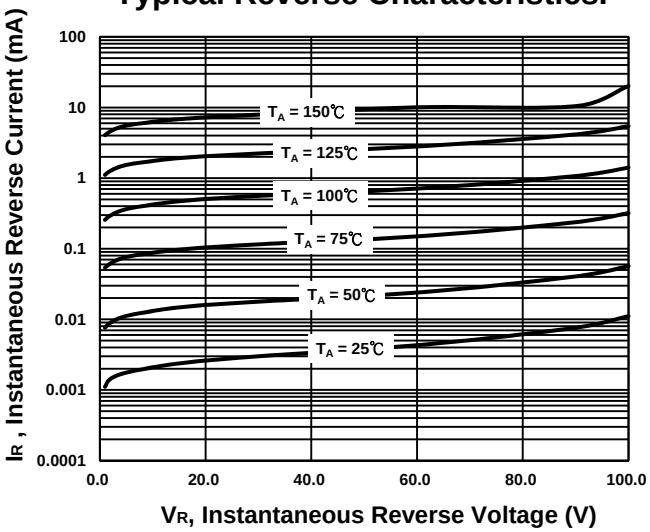
PARAMETER	SYMBOL	TYP	MAX	UNIT
Breakdown voltage I_R = 1 mA , T_A = 25 °C	V_{BR}	100(min)		V
Instantaneous Forward Voltage I_F = 5 A , T_A = 25 °C I_F = 5 A , T_A = 125 °C I_F = 10 A , T_A = 25 °C I_F = 10 A , T_A = 125 °C	V_F	 0.53 0.5 0.67 0.63	 0.59 0.56 0.75 0.7	 V
Instantaneous Reverse Current[1] V_R = 100V , T_A = 25 °C V_R = 100V , T_A = 125 °C	I_R	 6	800 50	uA mA

[1]Short duration pulse test used to minimize self-heating effect.

Typical Forward CharacteristicsI



Typical Reverse CharacteristicsI



Forward Current Derating Curve