



STANDARD RECOVERY DIODES

High Power Diodes Hockey Puk Version R900K...C Series

Type: R900K...40C to R900K...60C

FEATURES

- € Wide current range
- € High voltage ratings up to 6000 V
- € High surge current capabilities
- € Case style DO-200AC (K-PUK)

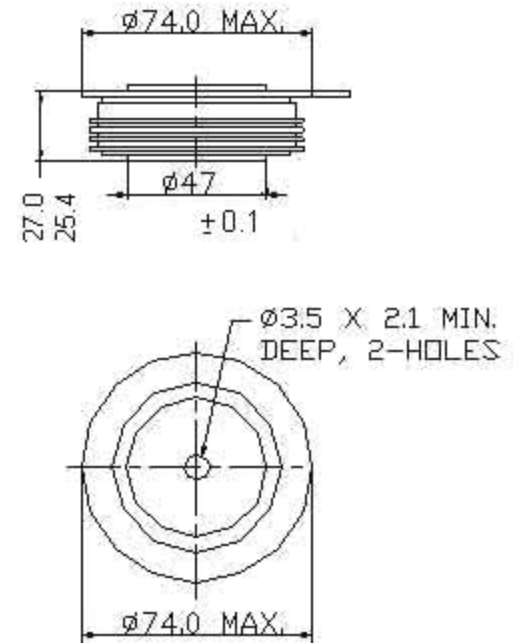
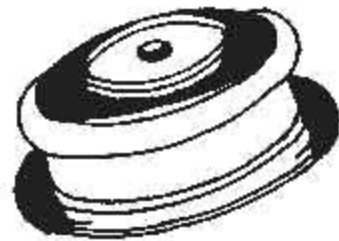
TYPICAL APPLICATIONS

- € Converters
- € High power drives
- € Power supplies
- € Traction Application

MAJOR RATINGS & CHARACTERISTICS

Parameters	R900K	Units
I_{FAV}	900	A
@ T_{rr}	60	°C
I_{FSM} @ 50 Hz	9200	A
V_{RRM} range	4000 to 6000	V
T_j	-40 to 160	°C

R900K (K - PUK)



All dimension in millimeters

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R900K

ELECTRICAL SPECIFICATION VOLTAGE RATINGS

Type Number	Voltage Code	V_{RRM} , max. repetitive peak reverse voltage V	V_{RRM} , max. non- repetitive peak reverse voltage V	I_{DRM} max. @ $T_J = T_J$ max. mA
R900K	40	4000	4200	125
	44	4400	4600	
	48	4800	5000	
	50	5000	5200	
	52	5200	5400	
	54	5400	5600	
	58	5800	6000	
	60	6000	6200	

FORWARD CONDUCTION

	Parameter	R900K	Units	Conditions
$I_{F(AV)}$	Max. average Forward current @ heat sink temperature	900	A	180° conduction, half sine wave double side cooled
		60	°C	
V_{FM}	Max. Forward voltage drop	1.76	V	$I_{pk} = 1000A$, $T_J = T_J$ max., $t_p = 10ms$ sine pulse.
V_O	Threshold voltage	1.15	V	$T_J = T_J$ max.
r_f	Forward slope resistance	1.70	mΩ	$T_J = T_J$ max.

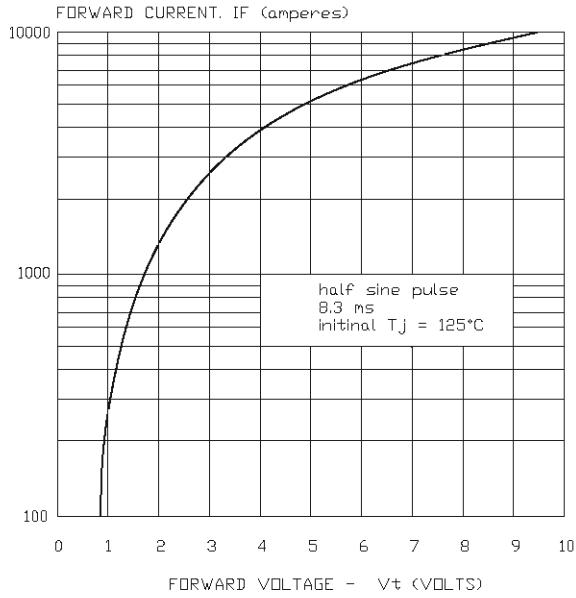
THERMAL AND MECHANICAL SPECIFICATION

	Parameter	R900K	Units	Conditions
T_J	Max. operating temperature range	-40 to 160	°C	
T_{stg}	Max. storage temperature range	-55 to 160		
R_{thJ-hs}	Max. thermal resistance, junction to heat sink	0.023	K/W	DC operation single side cooled
F	Mounting force, ±10%	22250 (2250)	N (kg)	
w t	Approximate weight	425	g	
	Case style	DO-200A (K-PUK)		See outline

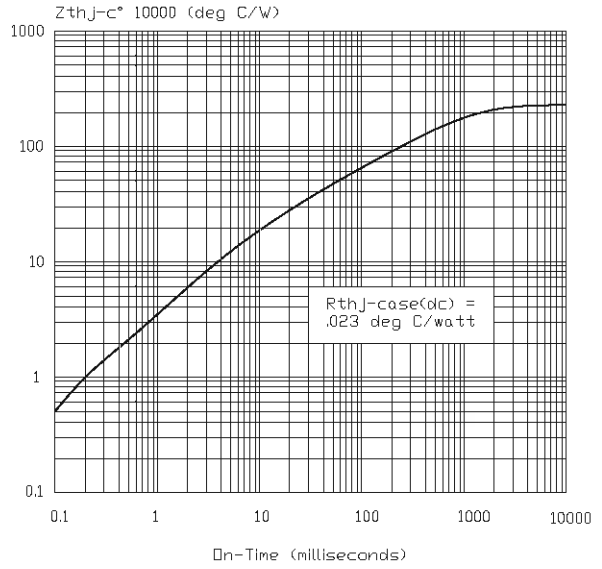
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R900K

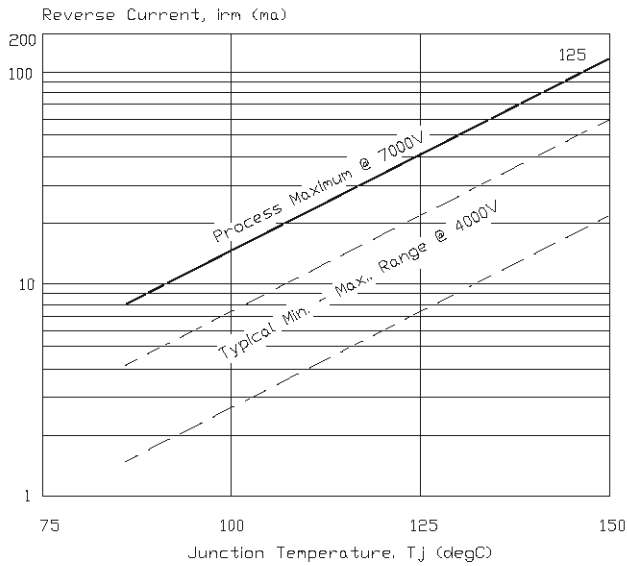
FORWARD CHARACTERISTIC
PROCESS MAXIMUM



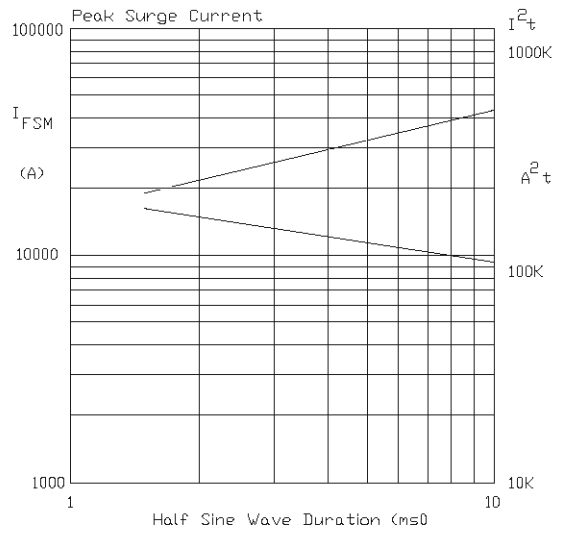
THERMAL IMPEDANCE vs. ON-TIME



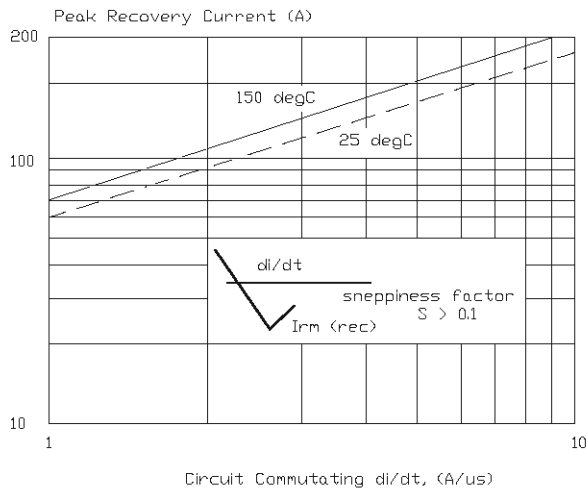
LEAKAGE CURRENT



NON-REPETITIVE SURGE CURRENT



MAXIMUM PEAK RECOVERY CURRENT



POWER DISSIPATION
Full Cycle Average

