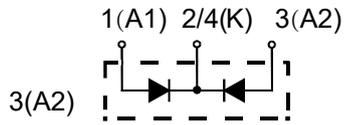
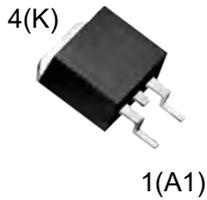


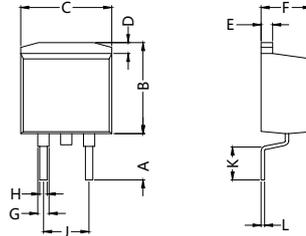
D20LC20UA6

Soft Recovery Behaviour High-Performance Wide Temperature Range Ultra Fast Recovery Epitaxial Diodes

Dimensions TO-263(D²PAK)



A1 = Anode 1
A2 = Anode 2
K = Cathode



Dim.	Millimeter		Inches	
	Min.	Max.	Min.	Max.
A	5.00	5.60	0.197	0.220
B	9.32	10.52	0.367	0.414
C	9.60	10.40	0.378	0.409
D	1.10	1.40	0.043	0.055
E	1.20	1.50	0.047	0.059
F	4.32	4.82	0.170	0.190
G	1.15	1.65	0.045	0.065
H	0.64	1.00	0.025	0.039
J	4.80	5.20	0.189	0.205
K	2.80	3.90	0.110	0.154
L	0.30	0.45	0.012	0.018



	V _{RSM} V	V _{RRM} V
D20LC20UA6	220	200

ABSOLUTE MAXIMUM RATINGS

Symbol	Parameter	Test Conditions	Values	Unit
V _R	Maximum D.C. Reverse Voltage		200	V
V _{RRM}	Maximum Repetitive Reverse Voltage		200	V
I _{F(AV)}	Average Forward Current	T _C =110°C, Per Diode	10	A
		T _C =110°C, Per Package	20	A
I _{F(RMS)}	RMS Forward Current	T _C =110°C, Per Diode	14	A
I _{FSM}	Non-Repetitive Surge Forward Current	T _J =45°C, t=10ms, 50Hz, Sine	150	A
P _D	Power Dissipation		80	W
T _J	Junction Temperature		-40 to +150	°C
T _{STG}	Storage Temperature Range		-40 to +150	°C
R _{θJC}	Thermal Resistance	Junction-to-Case	1.0	°C/W
Weight			1.8	g



D20LC20UA6

Soft Recovery Behaviour High-Performance Wide Temperature Range Ultra Fast Recovery Epitaxial Diodes

ELECTRICAL CHARACTERISTICS

$T_C=25^\circ\text{C}$ unless otherwise specified

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Unit
I_{RM}	Reverse Leakage Current	$V_R=200\text{V}$	--	--	10	μA
		$V_R=200\text{V}, T_J=125^\circ\text{C}$	--	--	10	mA
V_F	Forward Voltage	$I_F=10\text{A}$	--	0.90	1.10	V
		$I_F=10\text{A}, T_J=125^\circ\text{C}$	--	--	0.95	V
t_{rr}	Reverse Recovery Time	$I_F=1\text{A}, V_R=30\text{V}, di_F/dt=-200\text{A}/\mu\text{s}$	--	27	35	ns
t_{rr}	Reverse Recovery Time	$V_R=100\text{V}, I_F=10\text{A}$	--	40	50	ns
I_{RRM}	Max. Reverse Recovery Current	$di_F/dt=-200\text{A}/\mu\text{s}, T_J=25^\circ\text{C}$	--	2.1	--	A
t_{rr}	Reverse Recovery Time	$V_R=100\text{V}, I_F=10\text{A} di_F/dt=$	--	55	65	ns
I_{RRM}	Max. Reverse Recovery Current	$dt=-200\text{A}/\mu\text{s}, T_J=125^\circ\text{C}$	--	5	--	A

FEATURES

- * International standard package TO-263 (D²PAK)
- * Planar passivated chips
- * Very short recovery time
- * Extremely low switching losses
- * Low I_{RM} -values
- * Soft recovery behaviour
- * RoHS compliant

APPLICATIONS

- * Antiparallel diode for high frequency switching devices
- * Antisaturation diode
- * Snubber diode
- * Free wheeling diode in converters and motor control circuits
- * Rectifiers in switch mode power supplies (SMPS)
- * Inductive heating and melting
- * Uninterruptible power supplies (UPS)
- * Ultrasonic cleaners and welders

ADVANTAGES

- * High reliability circuit operation
- * Low voltage peaks for reduced protection circuits
- * Low noise switching
- * Low losses
- * Operating at lower temperature or space saving by reduced cooling

Marking

D20LC20UA6
(TO-263)



- Company Logo
- Part Number
- Lot No.

Ordering Information

Part Number	Package	Shipping	Marking Code
D20LC20UA6	TO-263	50pcs / Tube or 800pcs / Tape & Reel or 1000pcs / Tape & Reel	D20LC20UA6

Sirectifier[®]

D20LC20UA6

Soft Recovery Behaviour High-Performance Wide Temperature Range Ultra Fast Recovery Epitaxial Diodes

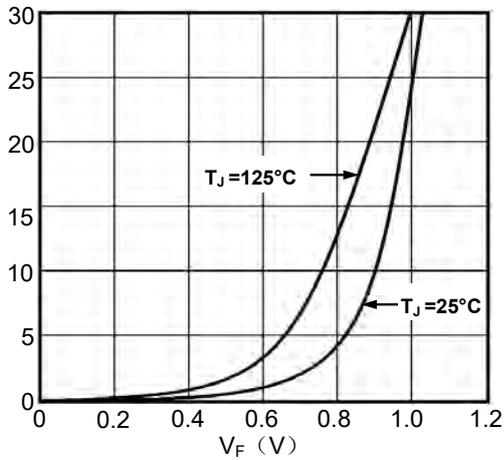


Fig1. Forward Voltage Drop vs Forward Current

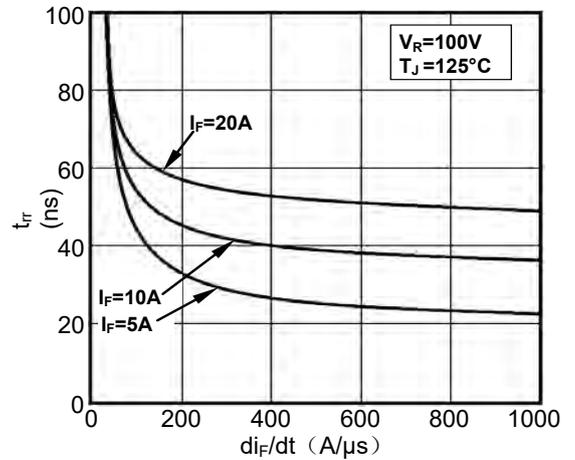


Fig2. Reverse Recovery Time vs di_F/dt

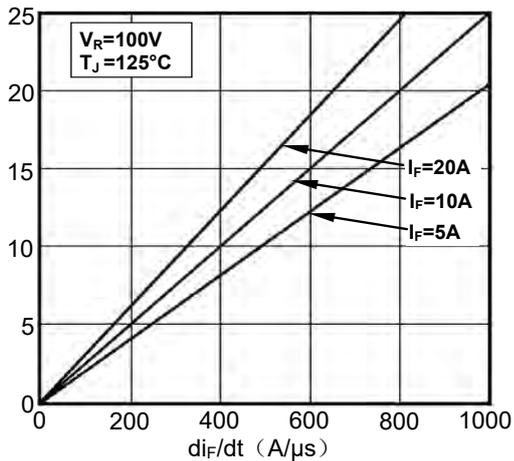


Fig3. Reverse Recovery Current vs di_F/dt

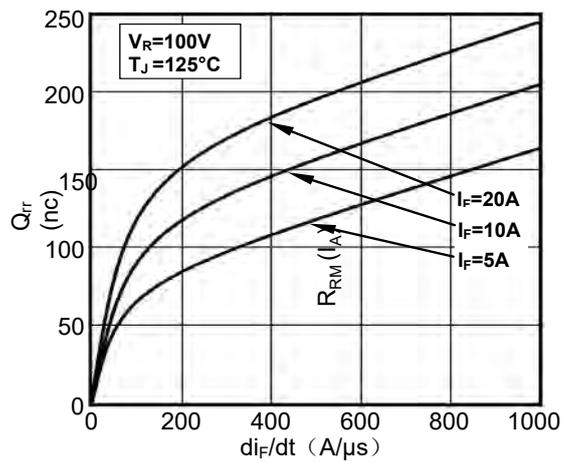


Fig4. Reverse Recovery Charge vs di_F/dt

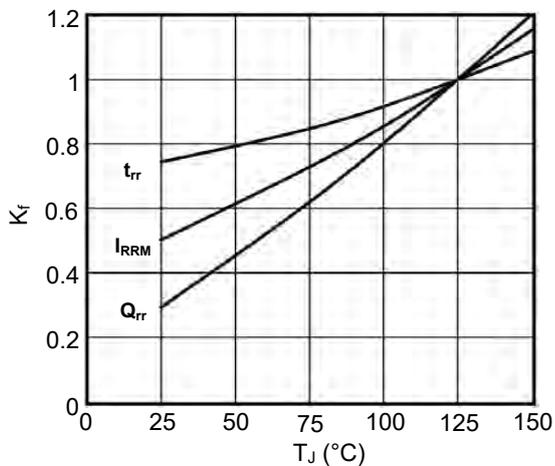


Fig5. Dynamic Parameters vs Junction Temperature

