

Features

- Full blocking capability over wide temperature range
- High Surge current capability
- Hermetic metal case with ceramic insulator

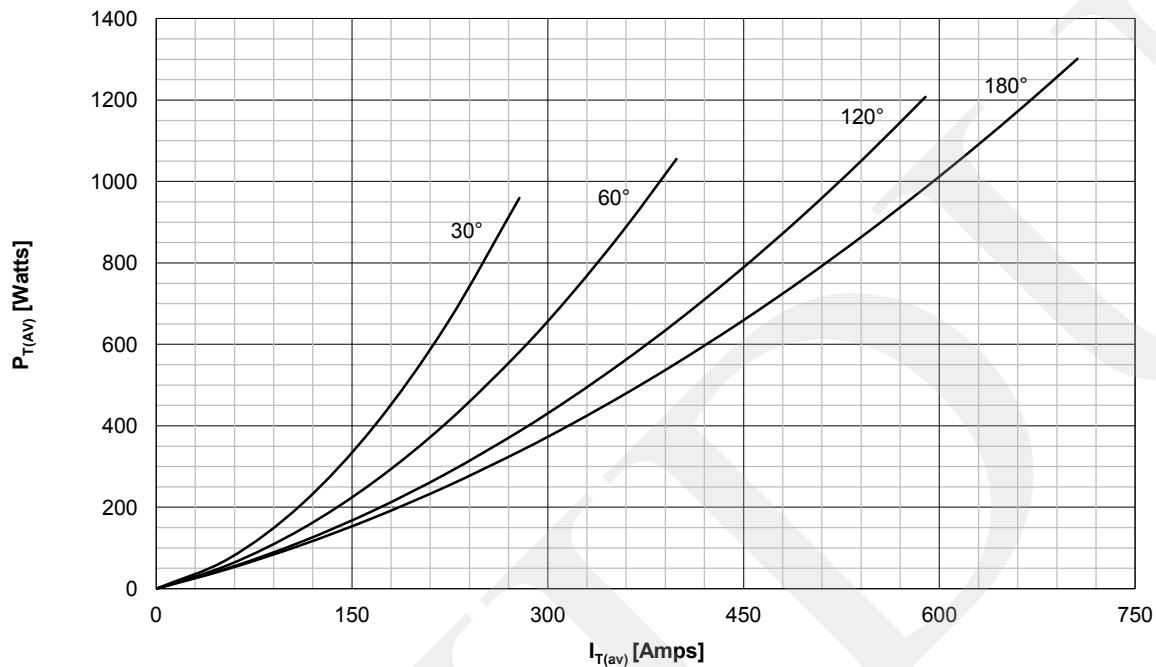
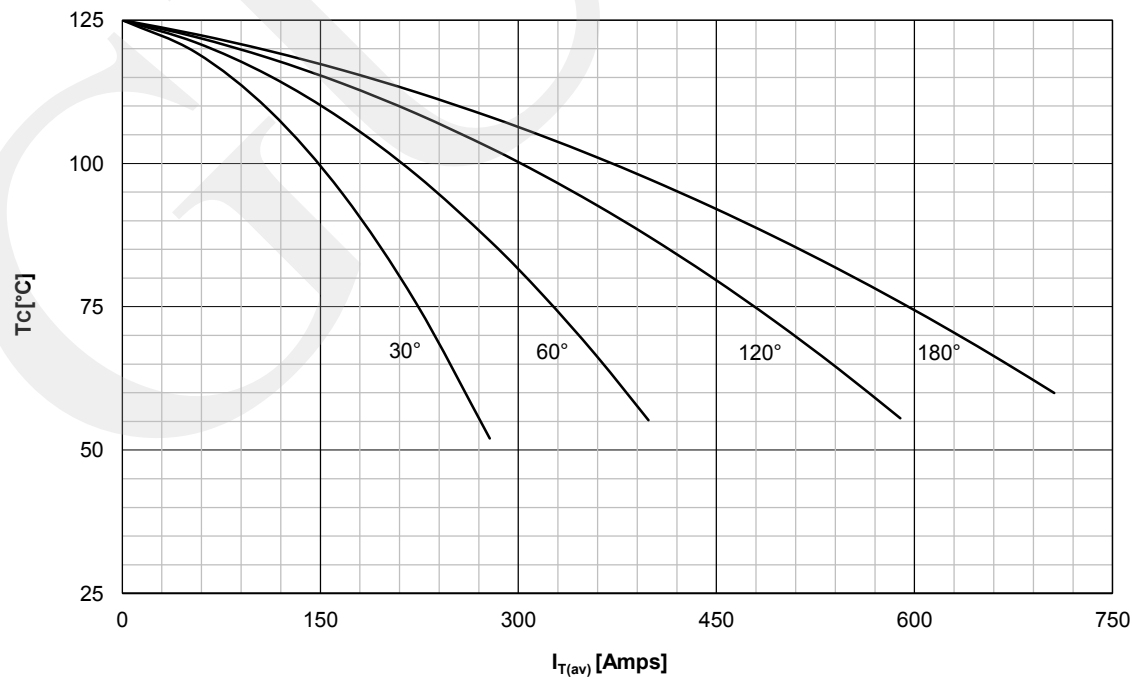
Key Parameters

V_{DRM} / V_{RRM}	= 1800V
$I_{T(AV)}$	= 706A
I_{TSM}	= 9.0kA
$V_{T(TO)}$	= 0.80V
r_T	= 0.60mΩ

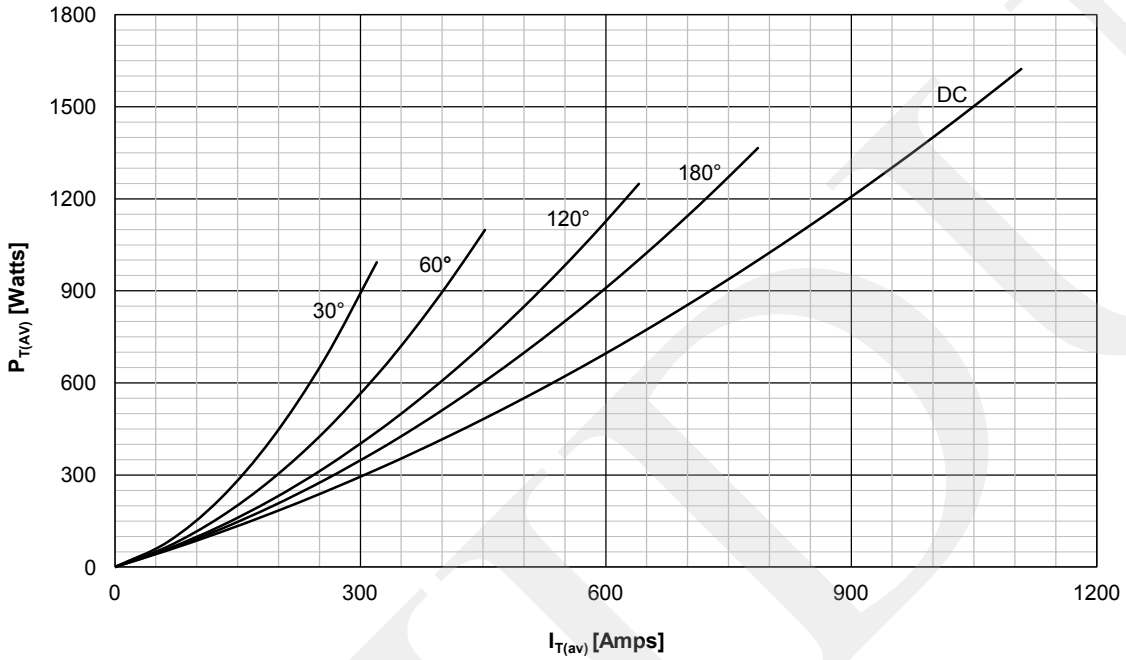
Applications

- Power Supplies
- AC Controllers
- Controlled Rectifiers

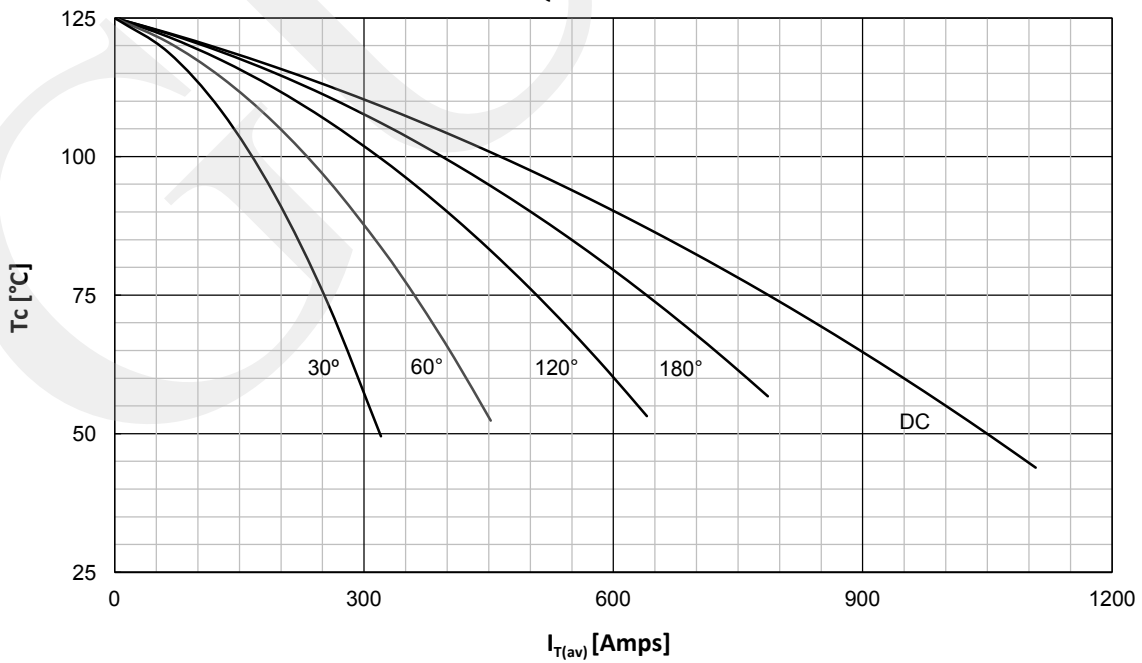
Symbol	Characteristic	Conditions	T _J [°C]	Value	Unit
BLOCKING					
V_{RRM}	Repetitive peak reverse voltage		125	200 - 1800	V
V_{RSM}	Non-repetitive peak reverse voltage		125	300 - 1900	V
V_{DRM}	Repetitive peak off-state voltage		125	200 - 1800	V
I_{RRM}	Repetitive peak reverse current	$V = V_{RRM}$	125	50	mA
I_{DRM}	Repetitive peak off-state current	$V = V_{DRM}$	125	50	mA
CONDUCTING					
$I_{T(AV)}$	Mean on state current	180° sin, 50 Hz, T _c =60°C, double side cooled T _c =85°C, double side cooled		706 507	A
I_{TRMS}	RMS on state current			1108	A
I_{TSM}	Surge on state current	Sine wave, 10 ms Without reverse voltage	25	9.0	kA
			125	8.0	kA
$I^2 t$	$I^2 t$	Sine wave, 10 ms Without reverse voltage	25	405 × 10 ³	A ² s
			125	320 × 10 ³	A ² s
V_T	Peak on state voltage	Peak on state current = 1600A	125	1.92	V
$V_{T(TO)}$	Threshold voltage		125	0.80	V
r_T	On state slope resistance		125	0.60	mΩ
SWITCHING					
di/dt	Critical rate of rise of on-state current	Repetitive	125	150	A/μs
dv/dt	Critical rate of rise of off-state voltage	$V_{DR} = 67\% V_{DRM}$	125	1000	V/μs
GATE					
I_{gt}	Gate trigger current	$V_D = 6V$	25	150	mA
V_{gt}	Gate trigger voltage	$V_D = 6V$	25	3.0	V
I_H	Holding current	$V_D = 6V$, gate open circuit	25	300	mA
I_L	Latching current	$V_D = 6V$	25	600	mA
MOUNTING					
$R_{th(j-c)}$	Thermal impedance, sin 180°	Junction to case, Double side cooled		0.05	°C/W
$R_{th(c-h)}$	Thermal impedance	Case to heatsink, Double side cooled		0.015	°C/W
T_j	Max. junction temperature			125	°C
T_{stg}	Storage temperature			-40 125	°C
M	Mounting Torque			8	KN
W	Weight (Approx.)			85	gm

DISSIPATION CHARACTERISTICS
SINE WAVE

 ON STATE CURRENT DERATING CURVE
SINE WAVE


DISSIPATION CHARACTERISTICS
SQUARE WAVE



ON STATE CURRENT DERATING CURVE
SQUARE WAVE



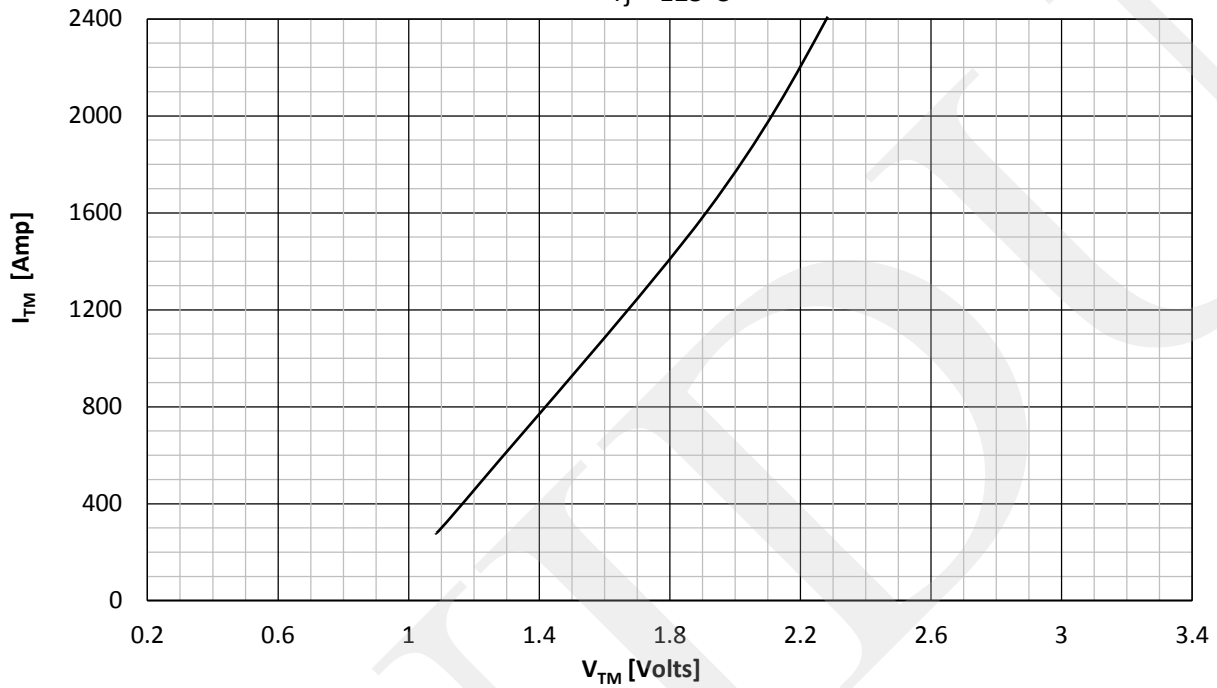


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Power Semiconductor Expert

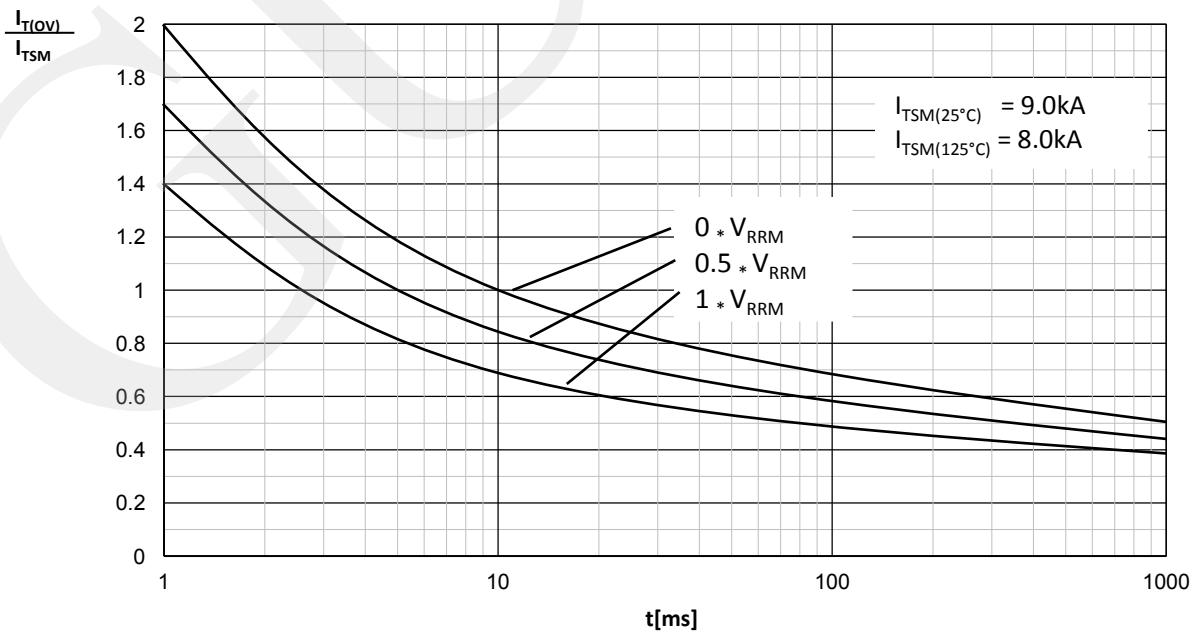
GDKP706

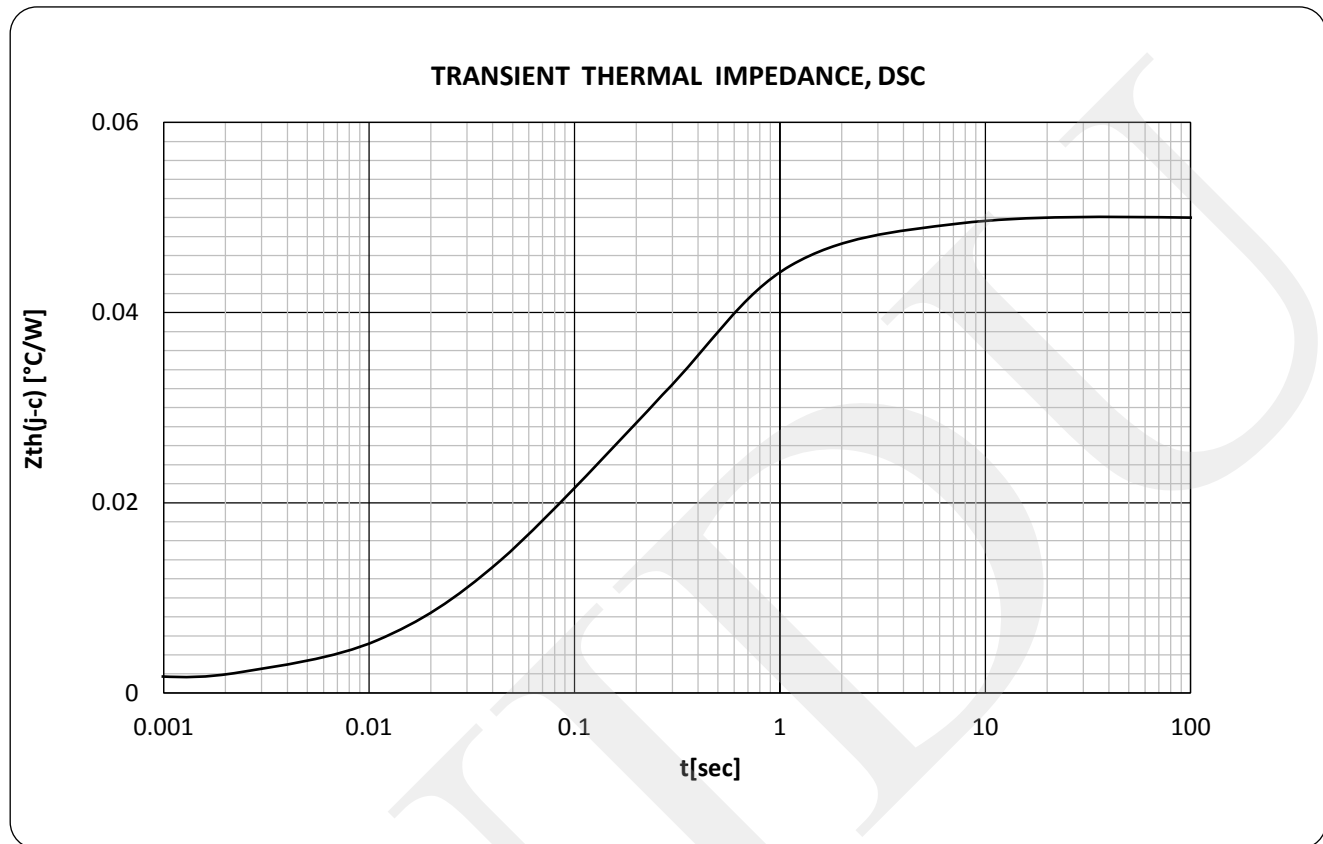
ON -STATE CHARACTERISTICS

$T_j = 125^\circ\text{C}$



SURGE CHARACTERISTICS



**ORDERING INFORMATION**

GDKP	706	C	X X
Phase Control Thyristor	Current code	Capsule Version	Voltage Code Code X 100 = V_{DRM}/V_{RRM}

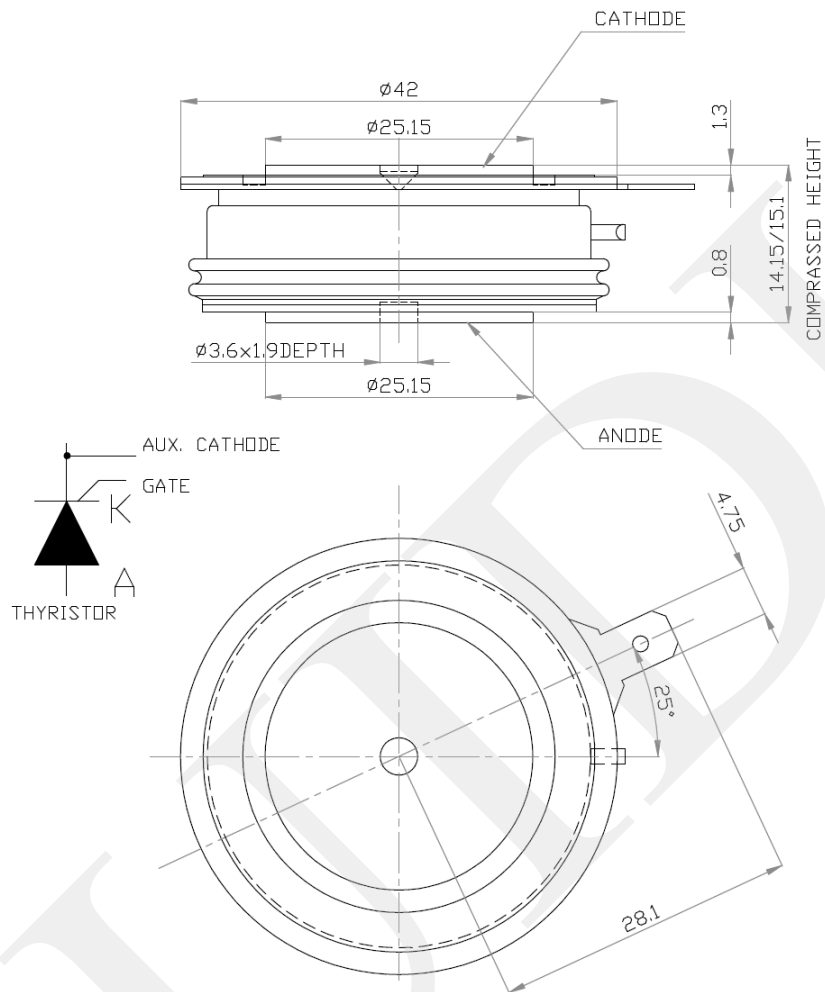
Order Code GDKP706C18 – 1800V V_{DRM}, V_{RRM} , 14mm clamp height capsule



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GDKP706

Outline



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In the interest of product improvement, GUIDU reserves the right to change specifications at any time without prior notice

GUIDE