

S6565(F, G)

Unit in mm

- Repetitive Peak Off-State Voltage : $V_{DRM}=300\sim 400V$
- Average On-State Current : $I_T(AV)=3A$
- Turn-Off Time : $t_G=3.5\mu s$

1. CATHODE
2. ANODE
3. GATE

JEDKO
EIAJ
TOCHIBA 13-10A1B

CHARACTERISTIC		SYMBOL	RATING	UNIT
Repetitive Peak Off-State Voltage and Repetitive Peak Reverse Voltage	S6565F	V_{DRM}	300	V
	S6565G	V_{RRM}	400	
Non-Repetitive Peak Reverse Voltage (Tj=0~125°C)	S6565F	V_{RSM}	400	V
	S6565G		500	
Average On-State Current		$I_T(AV)$	3	A
R.M.S On-State Current		$I_T(RMS)$	4.7	A
Peak One Cycle Surge On-State Current (Non-Repetitive)		I_{TSM}	60(50Hz)	A
			66(60Hz)	
I^2t Limit Value (t=1ms~10ms)		I^2t	18	A ² s
Average Gate Power Dissipation		$P_G(AV)$	0.5	W
Peak Gate Power Dissipation		P_{GM}	5	W
Peak Forward Gate Voltage		V_{FGM}	10	V
Peak Reverse Gate Voltage		V_{RCM}	-6	V
Peak Forward Gate Current		I_{GM}	2	A
Junction Temperature		Tj	-40~125	°C
Storage Temperature Range		Tstg	-40~125	°C

Weight : 2.1g

ELECTRICAL CHARACTERISTICS (Ta=25°C)

CHARACTERISTIC	SYMBOL	TEST CONDITION	MIN.	MAX.	UNIT
Repetitive Peak Off-State Current and Repetitive Peak Reverse Current	I_{DRM}	$V_{DRM}=V_{RRM}=\text{Rated}$	-	1.0	mA
	I_{RRM}	$T_j=125^\circ\text{C}$	-	2.0	
Peak On-State Voltage	V_{TM}	$I_{TM}=20\text{A}$	-	2.0	V
Gate Trigger Voltage	V_{GT}	$V_D=6\text{V}$, $R_L=10\Omega$	-	1.5	V
Gate Trigger Current	I_{GT}		-	25	mA
Gate Non-Trigger Voltage	V_{GD}	$V_D=\text{Rated}$, $T_c=100^\circ\text{C}$	0.2	-	V
Gate Non-Trigger Current	I_{GD}		0.2	-	mA
Turn-on Time	t_{gt}	$V_D=\text{Rated}$, $I_{TM}=3\text{A}$ $I_G=120\text{mA}$, $t_{gr} \leq 1\mu\text{s}$	-	3.0	μs
Turn-off Time	t_q	$V_D=\text{Rated}$, $I_{TM}=20\text{A}$, $T_c=90^\circ\text{C}$ $V_G=-2.5\text{V}$, $dv/dt \leq 100\text{V}/\mu\text{s}$	-	3.5	μs
Critical Rate of Rise of Off-State Voltage	dv/dt	$V_D=\text{Rated}$, $V_G=-2.5\text{V}$, $R_{GK}=100\Omega$ $T_c=125^\circ\text{C}$, Exponential Rise	100	-	$\text{V}/\mu\text{s}$
Holding Current	I_H	$R_L=10\Omega$	-	80	mA
Thermal Resistance	$R_{th(j-l)}$	Junction to Lead	-	2.1	$^\circ\text{C}/\text{W}$

