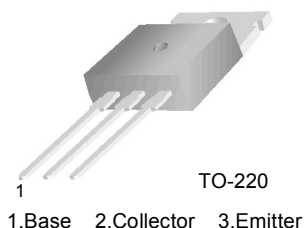


# FJP5555

## High Voltage Switch Mode Application

- Fast Speed Switching
- Wide Safe Operating Area
- Suitable for Electronic Ballast Application



### Absolute Maximum Ratings $T_C=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Value	Units
$V_{CBO}$	Collector-Base Voltage	1050	V
$V_{CEO}$	Collector-Emitter Voltage	400	V
$V_{EBO}$	Emitter-Base Voltage	14	V
$I_C$	Collector Current (DC)	5	A
$I_{CP}$	Collector Current (Pulse)	10	A
$P_C$	Collector Dissipation	75	W
$T_{STG}, T_J$	Storage Junction Temperature Range	- 55 ~ 150	$^\circ\text{C}$

### Electrical Characteristics $T_C=25^\circ\text{C}$ unless otherwise noted

Symbol	Parameter	Conditions	Min.	Max	Units
$BV_{CBO}$	Collector-Base Breakdown Voltage	$I_C=500\mu\text{A}, I_E=0$	1050		V
$BV_{CEO}$	Collector-Emitter Breakdown Voltage	$I_C=5\text{mA}, I_B=0$	400		V
$BV_{EBO}$	Emitter-Base Breakdown Voltage	$I_E=500\mu\text{A}, I_C=0$	14		V
$h_{FE}$	DC Current Gain	$V_{CE}=5\text{V}, I_C=10\text{mA}$ $V_{CE}=3\text{V}, I_C=0.8\text{A}$	10 20	40	
$V_{CE(sat)}$	Collector-Emitter Saturation Voltage	$I_C=1\text{A}, I_B=0.2\text{A}$ $I_C=3.5\text{A}, I_B=1.0\text{A}$		0.5 1.5	V
$V_{BE(sat)}$	Base-Emitter Saturation Voltage	$I_C=3.5\text{A}, I_B=1.0\text{A}$		1.2	V
$C_{ob}$	Output Capacitance	$V_{CB}=10\text{V}, f=1\text{MHz}$	45		pF
$t_{ON}$	Current gain Bandwidth Product	$V_{CC}=125\text{V}, I_C=0.5\text{A}$ $I_{B1}=45\text{mA}, I_{B2}=0.5\text{A}$ $R_L=250\Omega$		1.0	$\mu\text{s}$
$t_{STG}$	Turn On Time			1.2	$\mu\text{s}$
$t_F$	Storage Time			0.3	$\mu\text{s}$
$t_{ON}$	Fall Time	$V_{CC}=250\text{V}, I_C=2.5\text{A}$ $I_{B1}=0.5\text{A}, I_{B2}=1.0\text{A}$ $R_L=100\Omega$		2.0	$\mu\text{s}$
$t_{STG}$	Turn On Time			2.5	$\mu\text{s}$
$t_F$	Storage Time			0.3	$\mu\text{s}$

Symbol	Parameter	Conditions	Min.	Max	Units
EAS	Avalanche Energy	L= 2mH	6		mJ

## Typical Characteristics

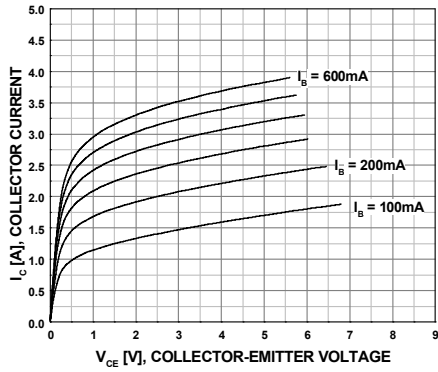


Figure 1. Static Characteristics

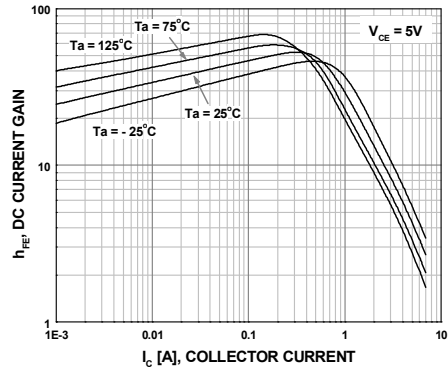


Figure 2. DC Current Gain

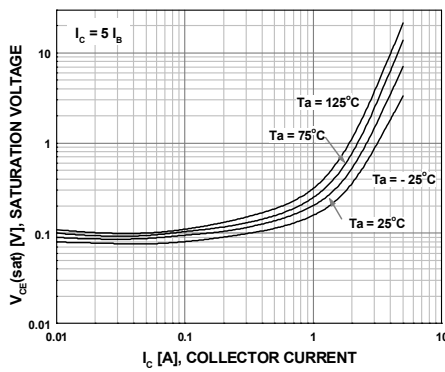


Figure 3. Saturation Voltage

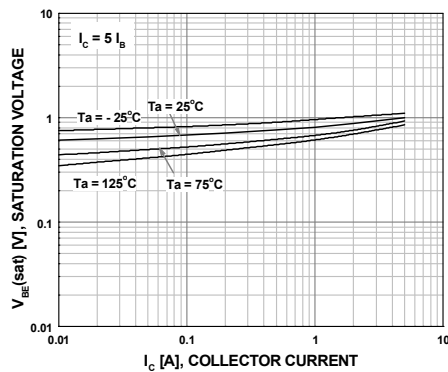


Figure 4. Saturation Voltage

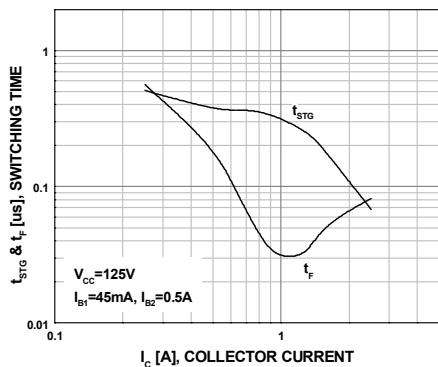


Figure 5. Resistive Load Switching

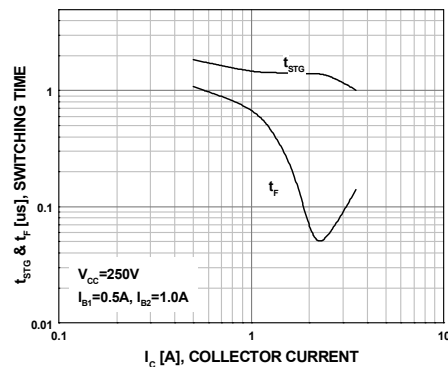


Figure 6. Resistive Load Switching

## Typical Characteristics (Continued)

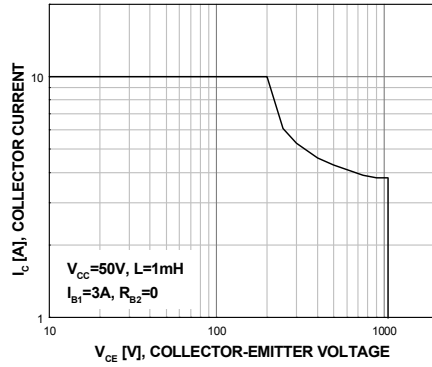


Figure 7. Reverse Biased Safe Operating Area

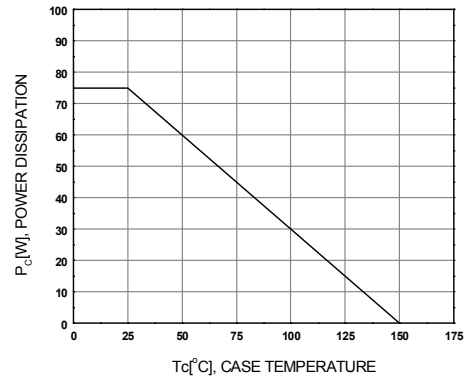


Figure 8. Power Derating

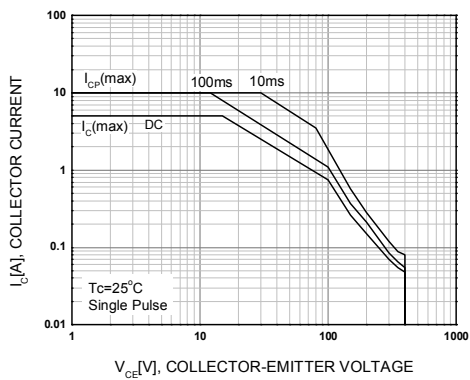


Figure 9. Forward Biased Safe Operating Area





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