



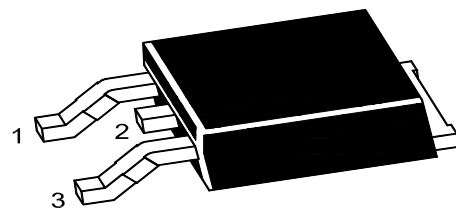
PJM25P60TE

P-Channel Enhancement Mode Power MOSFET

Features

- Low reverse transfer capacitance
- Low gate charge and $R_{DS(on)}$
- $V_{DS} = -60V, I_D = -25A$
 $R_{DS(on)} < 45m\Omega @ V_{GS} = -10V$

TO-252

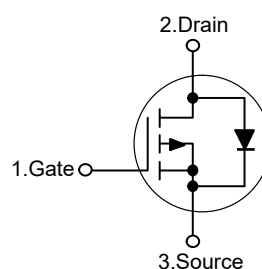


1. Gate 2.Drain 3.Source

Applications

- Power switching application
- Hard switched and high frequency circuits
- Uninterruptible power supply

Schematic Diagram



Absolute Maximum Ratings

Ratings at 25°C ambient temperature unless otherwise specified.

Parameter	Symbol	Value	Unit
Drain-Source Voltage	$-V_{DS}$	60	V
Gate-Source Voltage	V_{GS}	± 20	V
Drain Current-Continuous	$-I_D$	25	A
Drain Current-Pulsed ^{Note1}	$-I_{DM}$	60	A
Maximum Power Dissipation	P_D	90	W
Junction Temperature	T_J	150	°C
Storage Temperature Range	T_{STG}	-55 to +150	°C

Thermal Characteristics

Thermal Resistance, Junction-to-Ambient ^{Note2}	$R_{\theta JA}$	104	°C/W
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Electrical Characteristics

(Ta=25°C unless otherwise specified)

Parameter	Symbol	Test Condition	Min.	Typ.	Max.	Unit
Static Characteristics						
Drain-Source Breakdown Voltage	$-V_{(BR)DSS}$	$V_{GS}=0V, I_D=-250\mu A$	60	--	--	V
Zero Gate Voltage Drain Current	$-I_{DSS}$	$V_{DS}=-60V, V_{GS}=0V$	--	--	1	μA
Gate-Body Leakage Current	I_{GSS}	$V_{GS}=\pm 20V, V_{DS}=0V$	--	--	± 1	μA
Gate Threshold Voltage ^{Note3}	$-V_{GS(th)}$	$V_{DS}=V_{GS}, I_D=-250\mu A$	1	--	3	V
Drain-Source On-Resistance ^{Note3}	$R_{DS(on)}$	$V_{GS}=-10V, I_D=-20A$	--	37	45	m Ω
Forward Transconductance ^{Note3}	g_{FS}	$V_{DS}=-10V, I_D=-10A$	--	25	--	S
Dynamic Characteristics						
Input Capacitance	C_{iss}	$V_{DS}=-25V, V_{GS}=0V, f=1MHz$	--	3430	--	pF
Output Capacitance	C_{oss}		--	391	--	pF
Reverse Transfer Capacitance	C_{rss}		--	272	--	pF
Switching Characteristics						
Turn-on Delay Time	$t_{d(on)}$	$V_{DD}=-30V, R_L=1.5\Omega, V_{GS}=-10V, R_G=1.5\Omega$	--	12	--	nS
Turn-on Rise Time	t_r		--	15	--	nS
Turn-off Delay Time	$t_{d(off)}$		--	38	--	nS
Turn-off Fall Time	t_f		--	15	--	nS
Total Gate Charge	Q_g	$V_{DD}=-30V, I_D=-20A, V_{GS}=-10V$	--	46	--	nC
Gate-Source Charge	Q_{gs}		--	9.5	--	nC
Gate-Drain Charge	Q_{gd}		--	11	--	nC
Source-Drain Diode Characteristics						
Diode Forward Voltage ^{Note3}	$-V_{SD}$	$V_{GS}=0V, I_S=-25A$	--	--	1.5	V
Diode Forward Current ^{Note2}	$-I_S$		--	--	25	A

Note: 1. Repetitive Rating: Pulse width limited by maximum junction temperature.

2. Surface Mounted on FR4 Board, $t \leq 10$ sec.

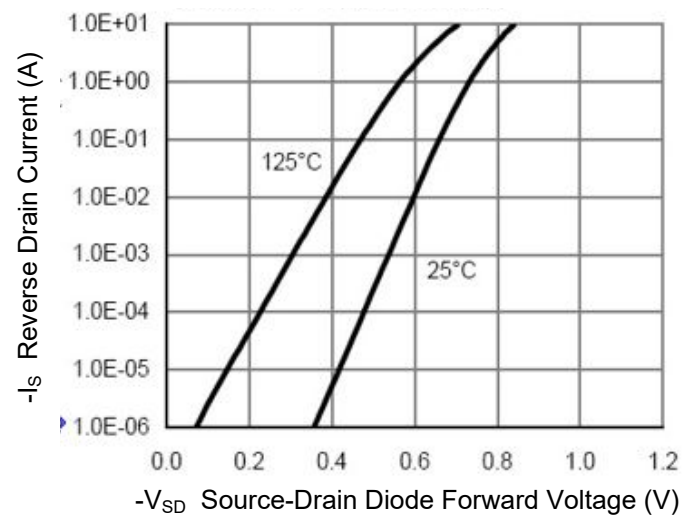
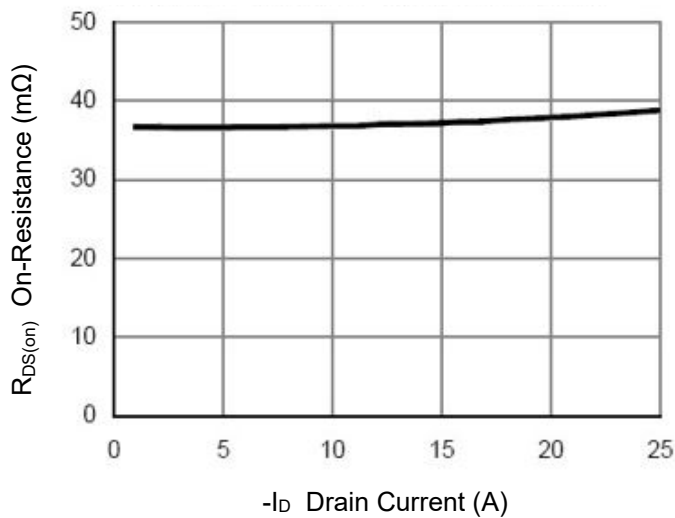
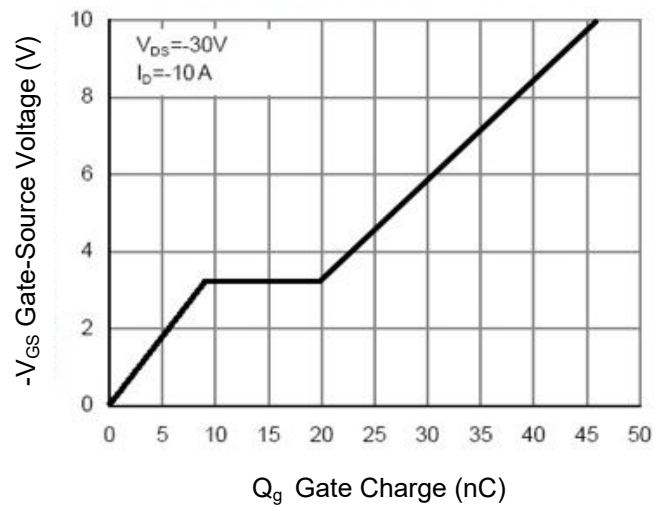
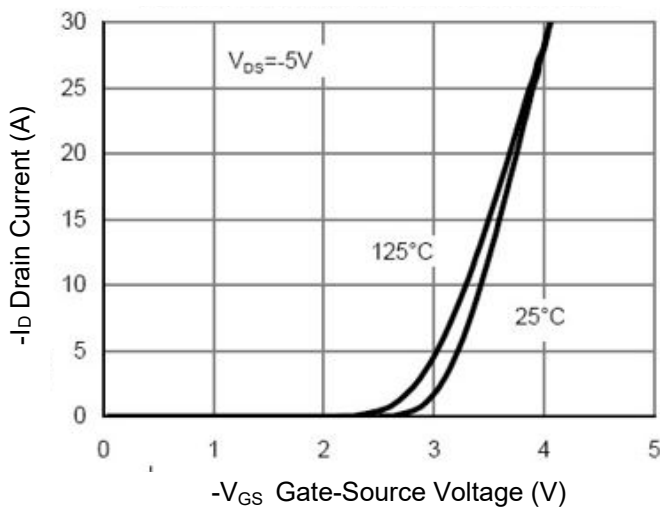
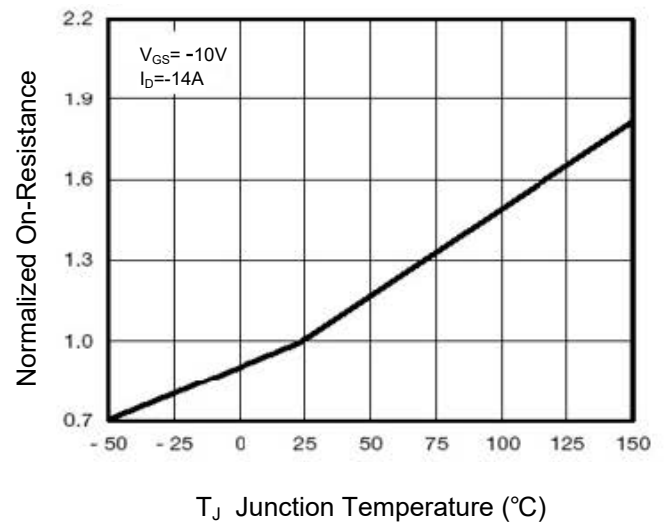
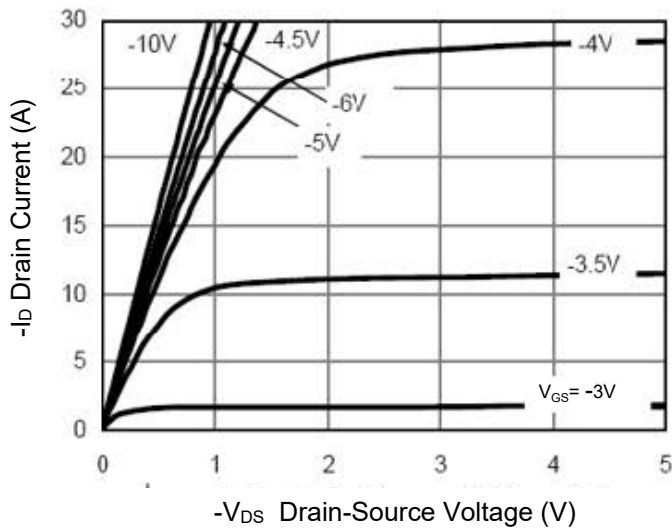
3. Pulse Test: Pulse width $\leq 380\mu s$, duty cycle $\leq 2\%$.



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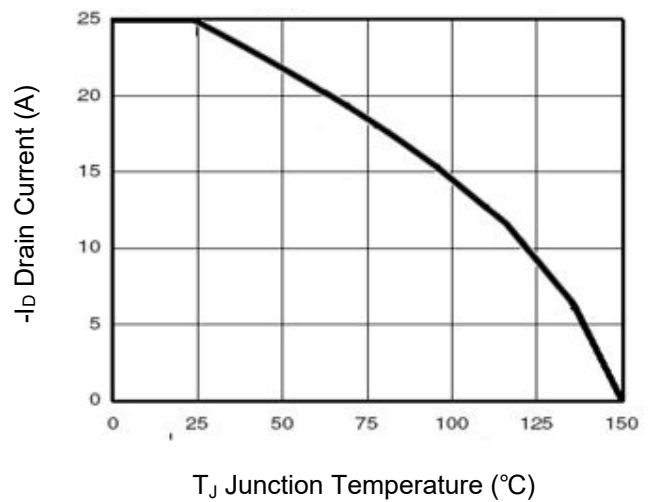
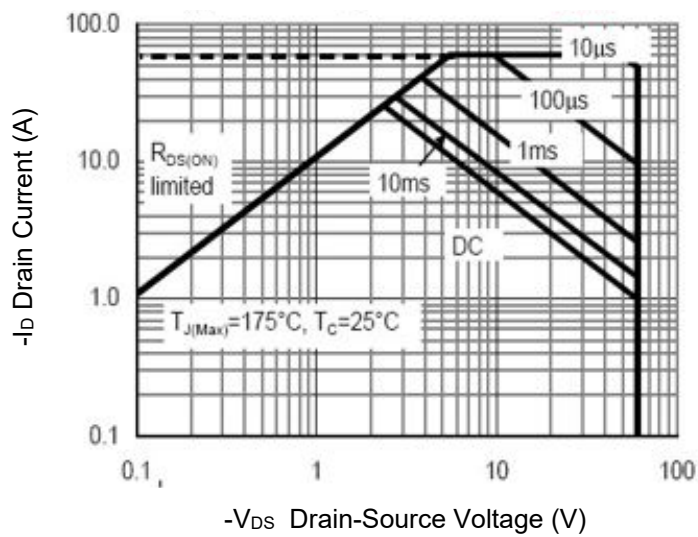
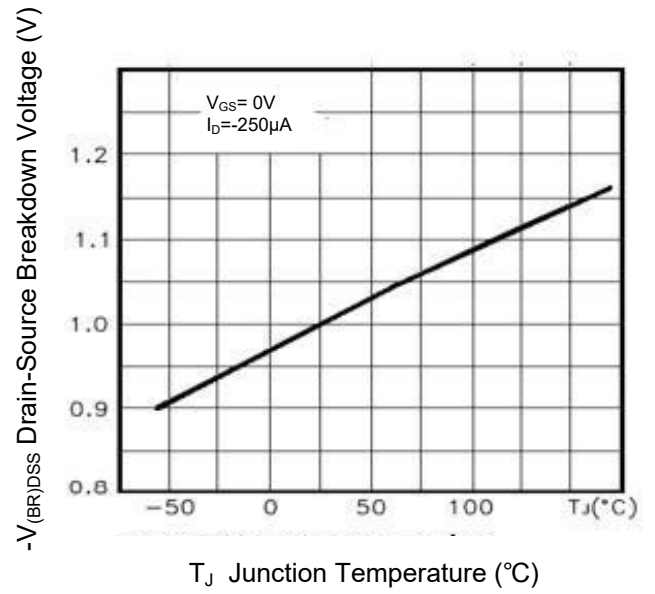
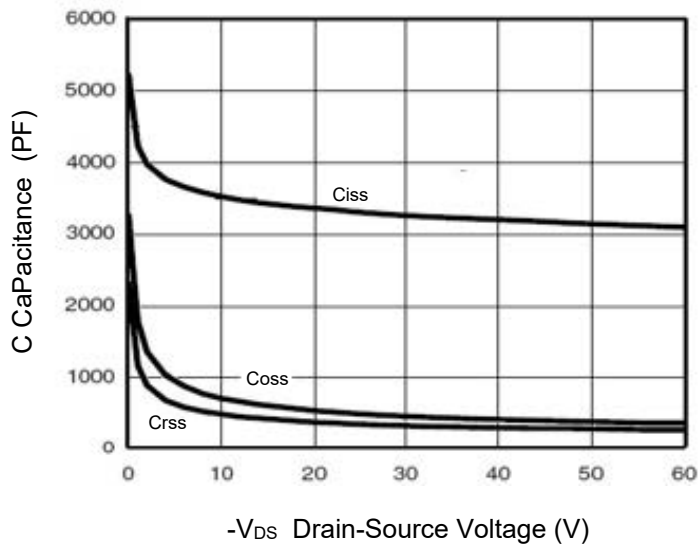
Typical Characteristic Curves





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Dimensions in mm

