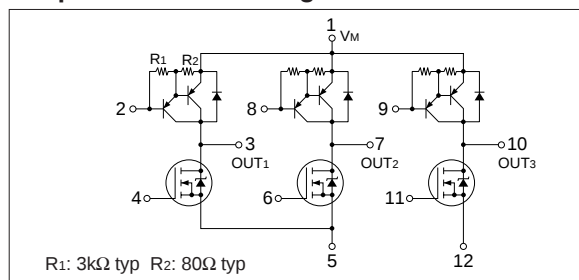


Absolute maximum ratings

(Ta=25°C)

Symbol	Ratings	Unit
V_M	100	V
I_O	± 6 (PW ≤ 100 ms)	A
I_{OP}	± 8 (PW ≤ 1 ms)	A
V_{GS}	± 10	V
I_B	-0.5	A
P_T	5 (Ta=25°C)	W
	35 (Tc=25°C)	
θ_{j-a}	25	°C/W
θ_{j-c}	3.57	°C/W
V_{ISO}	1000 (Between fin and lead pin, AC)	Vrms
T_j	150	°C
T_{stg}	-40 to +150	°C

Equivalent circuit diagram



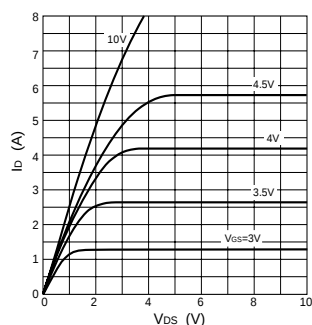
Electrical characteristics (Sink: N-channel MOSFET)

(Ta=25°C)

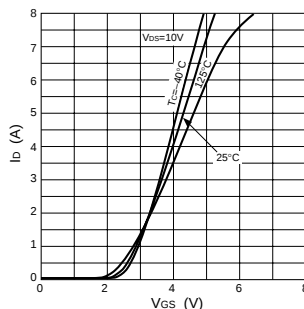
Symbol	Specification			Unit	Conditions
	min	typ	max		
$V_{(BR)DSS}$	100			V	$I_D=250\mu A$, $V_{GS}=0V$
I_{GSS}			± 500	nA	$V_{GS}=\pm 10V$
I_{DSS}			250	μA	$V_{DS}=100V$, $V_{GS}=0V$
V_{TH}	1.0		2.0	V	$V_{DS}=10V$, $I_D=250\mu A$
$Re(yfs)$	1.1	1.7		S	$V_{DS}=10V$, $I_D=4A$
$R_{DS(ON)}$		0.47	0.55	Ω	$V_{GS}=10V$, $I_D=2A$
		0.60	0.78		$V_{GS}=4V$, $I_D=2A$
C_{iss}		230		pF	$V_{DS}=25V$, $f=1.0MHz$, $V_{GS}=0V$
C_{oss}		60		pF	$V_{GS}=0V$
t_{on}		60		ns	$I_D=4A$, $V_{DD}=50V$, $V_{GS}=10V$
t_{off}		50		ns	$V_{GS}=10V$
V_{SD}		1.2	2.0	V	$I_{SD}=4A$, $V_{GS}=0V$
t_{rr}		250		ns	$I_f=\pm 100mA$

Characteristic curves (N-channel)

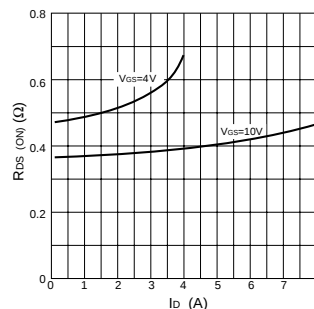
VDS-ID Characteristics (Typical)



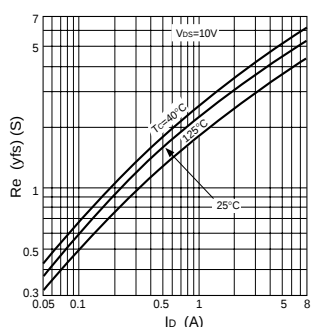
VGS-ID Temperature Characteristics (Typical)



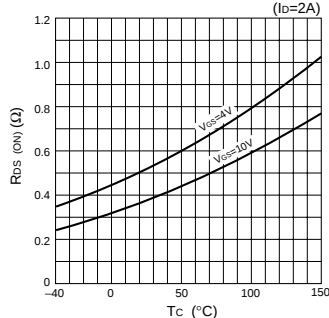
IDS-RDS(ON) Characteristics (Typical)



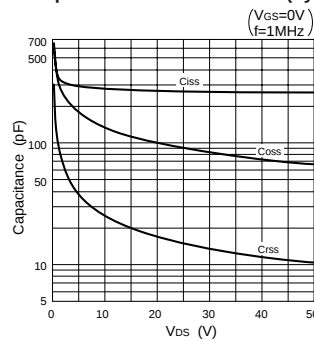
ID-Re(yfs) Temperature Characteristics (Typical)



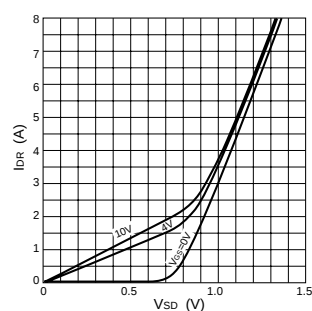
TC-RDS(ON) Characteristics (Typical)



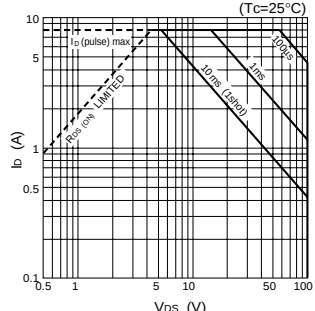
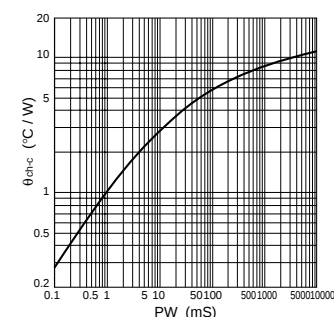
VDS-Capacitance Characteristics (Typical)



VSD-IDR Characteristics (Typical)



Safe Operating Area (SOA)

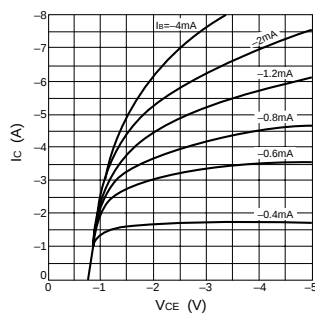
 θ_{ch-c} -PW Characteristics

Electrical characteristics (Source: PNP transistor) (Ta=25°C)

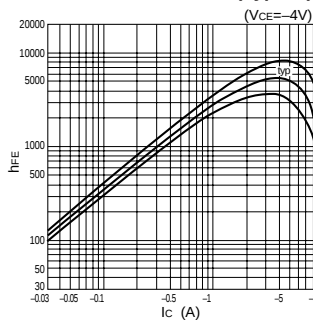
Symbol	Specification			Unit	Conditions
	min	typ	max		
ICBO			-10	μA	$V_{CB}=-100\text{V}$
IEBO			-10	mA	$V_{EB}=-6\text{V}$
VCEO	-100			V	$I_C=-10\text{mA}$
hFE	2000	5000	12000		$V_{CE}=-4\text{V}$, $I_C=-3\text{A}$
VCE(sat)			-1.5	V	$I_C=-3\text{A}$, $I_B=-6\text{mA}$
VBE(sat)			-2.2	V	
VFEC			1.3	V	$I_{FEC}=-1\text{A}$
trr		2.0		μs	$I_F=\pm 100\text{mA}$
ton		0.6		μs	$V_{CC}=-30\text{V}$ $I_C=-3\text{A}$ $I_{B1}=-I_{B2}=-6\text{mA}$
tstg		1.6		μs	
tf		0.5		μs	
fT		90		MHz	$V_{CE}=-12\text{V}$, $I_E=1\text{A}$
Cob		100		pF	$V_{CB}=-10\text{V}$, $f=1\text{MHz}$

Characteristic curves (PNP)

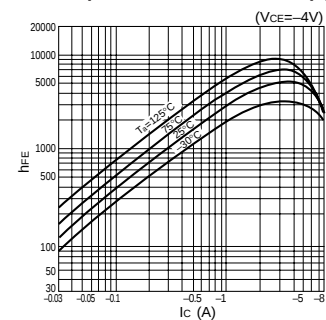
IC-VCE Characteristics (Typical)



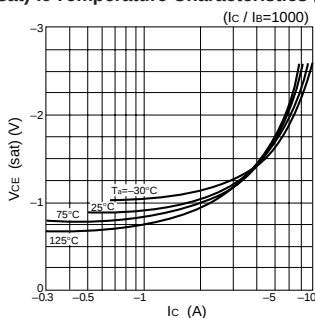
hFE-IC Characteristics (Typical)



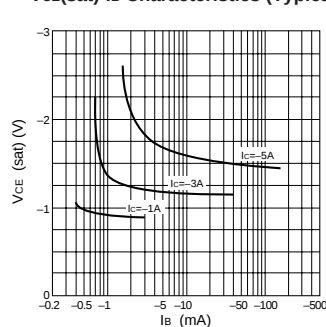
hFE-IC Temperature Characteristics (Typical)



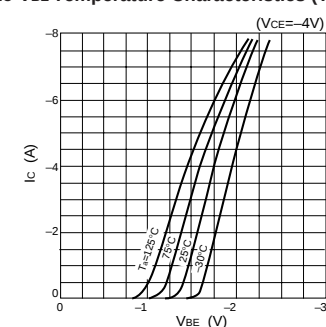
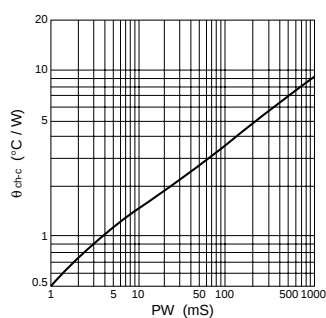
VCE(sat)-IC Temperature Characteristics (Typical)



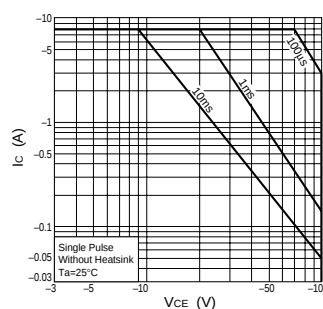
VCE(sat)-IB Characteristics (Typical)



IC-VBE Temperature Characteristics (Typical)

 θ_{JA} -PW Characteristics

Safe Operating Area (SOA)



Pr-Ta Characteristics

