

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

Symbol	Parameter	Test Conditions	Min.	Typ.	Max.	Units	
V_{FM}	Diode Forward Voltage	$I_F = 75\text{A}$	$T_C = 25^\circ\text{C}$	--	1.9	2.8	V
			$T_C = 100^\circ\text{C}$	--	1.8	--	
t_{rr}	Diode Reverse Recovery Time		$T_C = 25^\circ\text{C}$	--	90	130	ns
			$T_C = 100^\circ\text{C}$	--	130	--	
I_{rr}	Diode Peak Reverse Recovery Current	$I_F = 75\text{A}$ $di / dt = 150\text{ A/us}$	$T_C = 25^\circ\text{C}$	--	7	9	A
			$T_C = 100^\circ\text{C}$	--	10	--	
Q_{rr}	Diode Reverse Recovery Charge		$T_C = 25^\circ\text{C}$	--	315	590	nC
			$T_C = 100^\circ\text{C}$	--	650	--	

Thermal Characteristics

Symbol	Parameter	Typ.	Max.	Units
$R_{\theta JC}$	Junction-to-Case (IGBT Part, per 1/2 Module)	--	0.4	$^\circ\text{C/W}$
$R_{\theta JC}$	Junction-to-Case (DIODE Part, per 1/2 Module)	--	0.9	$^\circ\text{C/W}$
$R_{\theta CS}$	Case-to-Sink (Conductive grease applied)	0.05	--	$^\circ\text{C/W}$
Weight	Weight of Module	--	190	g

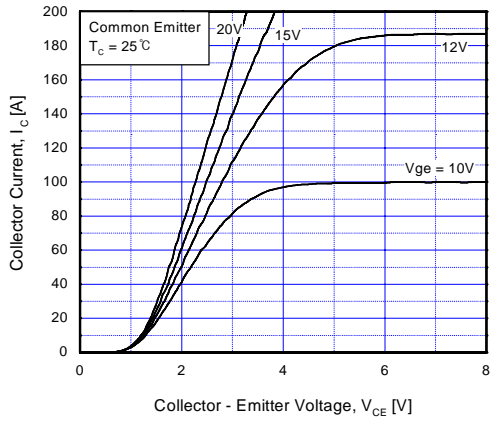


Fig 1. Typical Output Characteristics

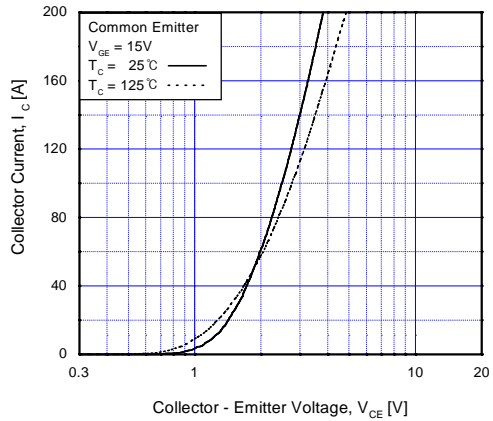


Fig 2. Typical Saturation Voltage Characteristics

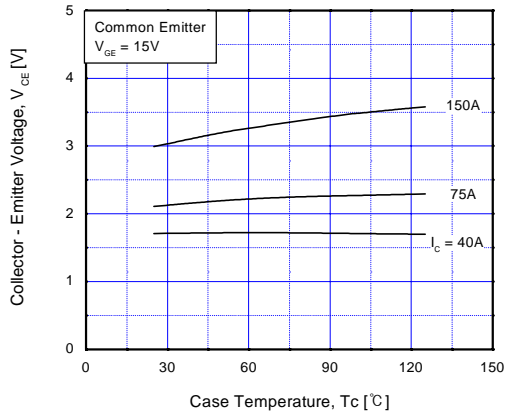


Fig 3. Saturation Voltage vs. Case Temperature at Variant Current Level

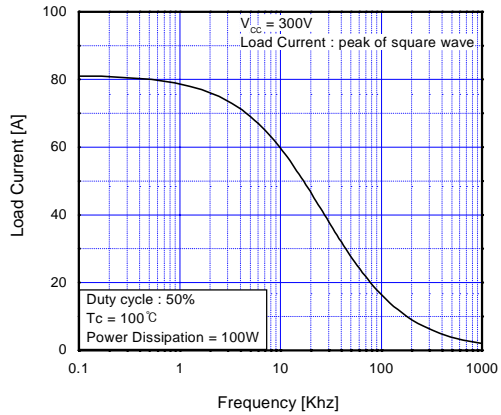


Fig 4. Load Current vs. Frequency

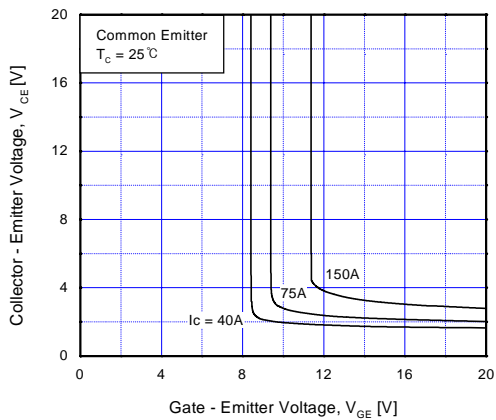


Fig 5. Saturation Voltage vs. V_{GE}

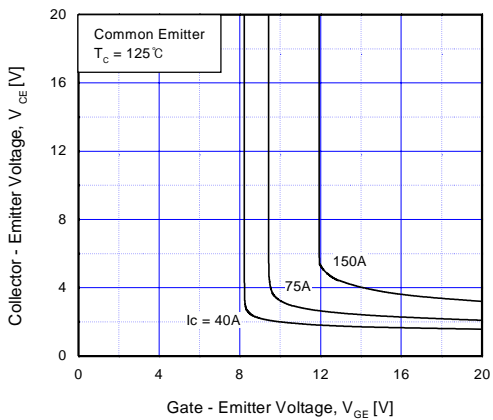


Fig 6. Saturation Voltage vs. V_{GE}